



XPV Peristaltic Pump Installation, Operation and Maintenance Manual



Tested and Certified by WQA
against NSF/ANSI 61-Section 8.
and CSA B483.1



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1. Introduction

Thank you for your purchase of the Chem-Tech Series XP peristaltic pump from Pulsafeeder. We appreciate your decision to purchase a Pulsafeeder product. Please take this time to become familiar with your pump and the number of accessories that shipped with your product.

The shipping box contains the following items:

- 1) Peristaltic pump comprising of: (a) pump head and tube assembly, (b) clear polycarbonate splash guard with locking thumb screw, and (c) snap-on rear splash guard. This can be found in the sealed bag that shipped with the product.
- 2) Instruction Manual.
- 3) Factory replacement tube
- 4) Suction and discharge tubing set (15-feet of ¼-inch OD polyethylene tubing).
- 5) Injector valve
- 6) Strainer w/ceramic weight.

2. Safety Instructions

READ AND UNDERSTAND ALL INSTRUCTIONS PRIOR TO USE. Failure to follow or understand instructions can/may lead to serious injury or death.

LISEZ ET COMPRENEZ TOUTES LES INSTRUCTIONS AVANT L'UTILISATION.

L'échec de suivre ou comprendre les instructions causer la blessure sérieuse ou la mort.

- **WARNING:** Secure chemicals & metering pumps, making them inaccessible to children & pets.
- **AVERTISSEMENT:** les produits chimiques sûrs et les pompes mesurantes, en les faisant inaccessible aux enfants et aux animaux de compagnie.
- **WARNING:** DO NOT PUMP FLAMMABLE LIQUIDS.
- **AVERTISSEMENT:** NE POMPEZ PAS DE LIQUIDES INFLAMMABLES.
- **WARNING:** To reduce the risk of electrical shock-before maintenance, repair, or moving always disconnect the power to the pump by unplugging from wall outlet.
- **AVERTISSEMENT:** Pour réduire le risque de choc électrique - avant la maintenance, la réparation, ou déplaçant débranche toujours le pouvoir de la pompe en se non connectant de l'issue murale.
- **WARNING:** Do not tamper with, cut the plug, or ground lug off the electrical cord. Consult a licensed electrician for proper installation.
- **AVERTISSEMENT:** ne tripotez pas, coupez la prise de courant ou la terre traînent de la corde électrique. Consultez un électricien agréé pour l'installation nécessaire.
- **WARNING:** Always wear protective clothing, including gloves and safety eye protection, when working on or near chemical metering pumps, consult chemical manufacture for protective equipment recommendations.
- **AVERTISSEMENT:** portez Toujours des vêtements protecteurs, en incluant des gants et une protection d'oeil de sécurité, en travaillant ou près des pompes mesurantes chimiques, consultez la fabrication chimique pour les recommandations d'équipement protectrices.
- **WARNING:** Always make sure the voltage on the pump data plate matches the installation voltage before plugging the pump into a wall outlet or hooking up to an electrical supply. If you are unsure have a licensed electrician inspect and install your pump.
- **AVERTISSEMENT:** assurez-vous Toujours que le voltage sur la plaque de données de pompe correspond au voltage d'installation avant le fait de brancher la pompe dans une issue murale ou le fait d'agrafer aux réserves électriques. Si vous êtes peu sûrs font inspecter un électricien agréé et installent votre pompe.
- **WARNING:** Always depressurize system and drain the chemical prior to installation or maintenance.
- **AVERTISSEMENT:** dépressurisez Toujours le système et égouttez le produit chimique avant l'installation ou de la maintenance.
- **WARNING:** Read and fully understand the section on tube replacement. Failure to do so may lead to serious injury.
- **AVERTISSEMENT:** Lisez et comprenez complètement la section sur le remplacement de tube. L'échec de faire ainsi peut causer la blessure sérieuse.
- **WARNING:** DO NOT MODIFY PUMP, as this poses a potentially dangerous situation and voids the warranty.
- **AVERTISSEMENT:** NE MODIFIEZ PAS DE POMPE, comme cela pose une situation potentiellement dangereuse et des vides la garantie.
- **WARNING:** If the injection point is lower than the chemical tank and pump, install an anti-siphon valve.
- **AVERTISSEMENT:** si le point d'injection est plus bas que le réservoir chimique et la pompe, installez une valve d'antisiphon.
- **WARNING:** All pumps are factory tested with water. Remove tubing and thoroughly dry if the chemical being pumped will react with water (for example: sulfuric acid).
- **AVERTISSEMENT:** Toutes les pompes sont l'usine évaluée avec l'eau. Enlevez la tuyauterie et tout à fait sec si le produit chimique étant pompé réagira avec l'eau (par exemple : acide sulfurique).

- **WARNING:** Only finger tighten plastic connections (Do not use a wrench).
- **AVERTISSEMENT:** Seulement le doigt se serre les connexions de plastique (n'utilisez pas de tourne-à-gauche).
- **WARNING:** Consult licensed plumber and electrician before installation to be sure to conform to local codes.
- **AVERTISSEMENT:** Consultez le plombier autorisé et l'électricien avant l'installation pour être sûr de vous conformer aux codes locaux.
- **WARNING:** Risk of electric shock – This pump is supplied with a grounding conductor and grounding-type attachment plug. To reduce the risk of electric shock, be certain that it is connected only to a properly grounded, grounding-type receptacle.
- **AVERTISSEMENT:** le Risque de décharge électrique – Cette pompe est fourni un conducteur de bases et une prise de courant d'attachement de type de bases. Pour réduire le risque de décharge électrique, soyez certains qu'il est raccordé seulement à correctement fondé, le réceptacle de type de bases.
- **WARNING:** To reduce risk of electric shock, connect only to properly grounded, grounding-type receptacle.
- **WARNING:** Acceptable for indoor use only.
- **WARNING:** Non-submersible pump.
- **CAUTION:** Inspect tubing regularly for cracking or deterioration and replace as necessary. (Always wear protective clothing and safety eye protection when inspecting tubing.)
- **PRUDENCE:** Inspectez la tuyauterie régulièrement pour le fait de faire craquer ou la détérioration et remplacez comme nécessaire. (Portez toujours des vêtements protecteurs et une protection d'oeil de sécurité en inspectant la tuyauterie.)
- **CAUTION:** KEEP FINGERS AWAY FROM ROTATING PARTS.
- **PRUDENCE:** TENEZ DES DOIGTS À DISTANCE DE FAIRE TOURNER DES PARTIES.
- **CAUTION:** If the pump is exposed to direct sunlight, use a U.V. resistant tubing.
- **PRUDENCE:** si la pompe est exposée pour diriger la lumière du soleil, utilisez une tuyauterie résistante U.V..
- **CAUTION:** Follow directions and warnings provided with the chemical from the chemical manufacturer. The user is responsible for determining the chemical compatibility with the chemical feed pump.
- **PRUDENCE:** Suivez des directions et des avertissements fournis avec le produit chimique du fabricant chimique. L'utilisateur est responsable de déterminer la compatibilité chimique avec la pompe de nourriture chimique.
- **CAUTION:** Consult with local health officials and qualified water conditioning specialists when treating potable water
- **PRUDENCE:** Entretenez-vous avec les fonctionnaires de santé locaux et l'eau autorisée conditionnant des spécialistes en traitant de l'eau potable
- **CAUTION:** For accurate volume output, the pump must be calibrated under all operating conditions.
- **PRUDENCE:** Pour la production de volume exacte, la pompe doit être calibrée sous toutes les conditions d'utilisation.

3. Technical Specifications

Refer to the data plate located on the back of the peristaltic pump. Note that the data plate will be located behind the back splash cover if installed. Please make note of the Electrical Rating, Feed Rate and Maximum Pressure of the pump.

Table 1: Technical Specifications (XPV)

Electrical Rating	115V/230V 1.8/0.9A 50/60Hz				
Feed Rate (GPD)	08	17	33	55	100
Feed Rate (LPH)	1.3	2.7	5.2	8.7	15.8
Maximum Pressure (PSI)	100		80		25
Maximum Pressure (Bar)	6.8		5.4		1.7
Maximum Ambient Temperature	104°F (40°C)				
Pump Safety Rating	ETL, cETL, ETL _{SAN} , NSF 50*				
Enclosure Rating	NEMA 3R (IP32)				
Pump Head	PVC				
Pump Head Tubing	Norprene				
Injection Fitting	PVC				
Strainer	Polypropylene				
Suction/Discharge Tubing	Polyethylene				
Pump Housing	ABS or Polycarbonate/PBT/15%GF				

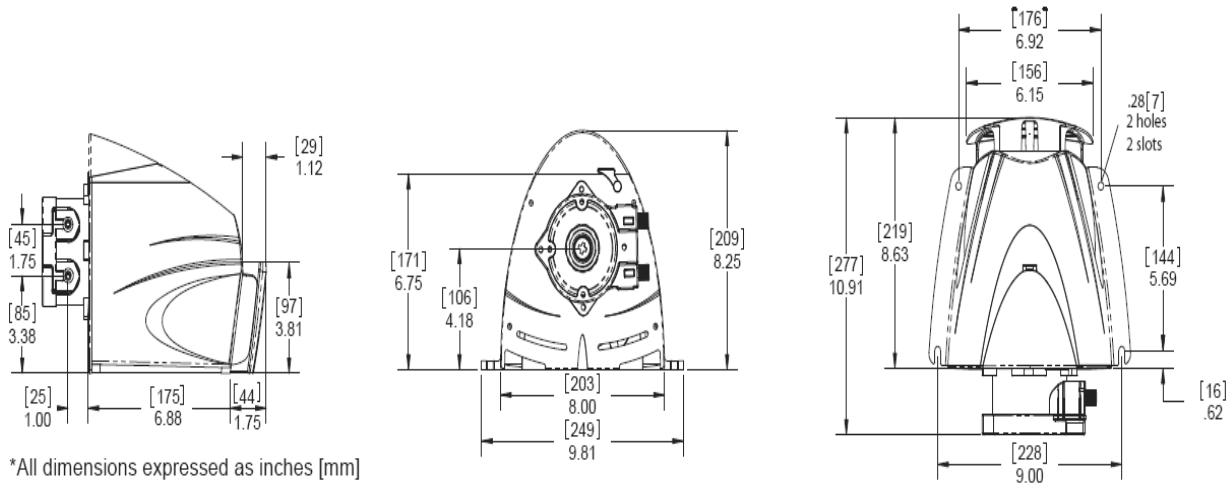


Figure 1: Pump Dimensions

4. Installation

NOTE: For pumps operating in swimming pool installations the pump is to be supplied by an isolating transformer or through a residual current device (RCD).

1) The pump can be installed either vertically or horizontally (See Figure 2). Make sure to secure the pump on a flat level surface that will support 50-lbs (22kg) and secure with four .25-in (6mm) screws in the holes provided. The guard snaps into the back of the pump via three tangs - see Figure 1. The pump should be mounted with no less than 1.75-in (44mm) of clearance around the venting on both the front and the rear of the pump. Locate the pump so there is direct access to the power cord plug.

The pump is rated for indoor use only. For applications that are subject to splashing make sure the pump is mounted horizontally level with splash guard in place. Vertical mountings require the purchase of optional hood (J63004).

2) Verify the electrical requirements for the pump as listed on the name plate and connect to an appropriate electrical source in compliance with local codes for the specific application.

3) Relieve the system pressure and drain the piping run where the injection fitting is to be installed. See Figure 2 for reference. **The injection fitting must not be installed in a dead end pipe or a deeply recessed tee. It should be installed so as to place the tip at the center of the fluid stream as indicated in Figure 2.** The injection fitting is supplied with .25-in NPT threads. If necessary drill a .44-in (11mm) diameter hole and using care not to tap too deeply, tap for .25-in NPT.

4) Apply Pipe tape to the injection fitting threads and install into piping system. **Do not remove the plastic sleeve on the tip of the fitting; it is a functional part** – see Figure 4.

CAUTION: Inspect the piping system and eliminate piping cross-connections to prevent feeding chemical to areas not needing treatment.

PRUDENCE: Inspectez le système piping et éliminez des trans-connexions piping pour prévenir le produit chimique mangeant aux régions pas ayant besoin du traitement.

To install tubing remove the compression fitting's coupling nut and sleeve and slide onto tubing with the sleeve located .38-in (9,5mm) from the tubing end – see Figure 4. Place tubing into fitting and hand tighten the coupling nut. **NOTE:** Immerse tubing in hot water to soften prior to pushing on to fitting. **Hand-tighten only, do not use wrenches. For in line check valve location, do not insert the tube more than .38in into the valve body.**

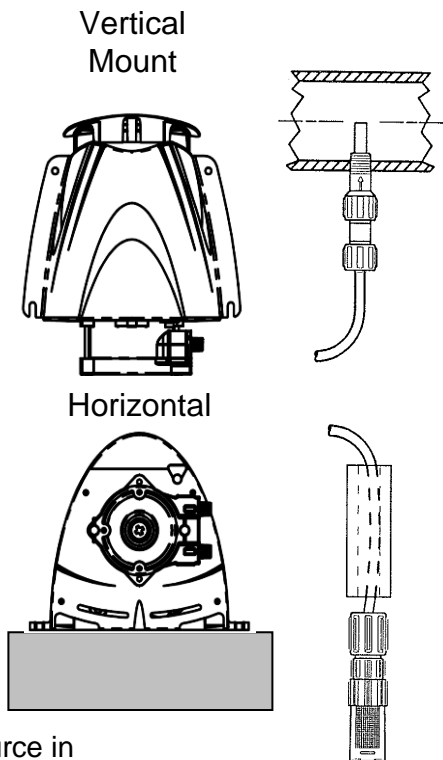


Figure 2: Injector Placement

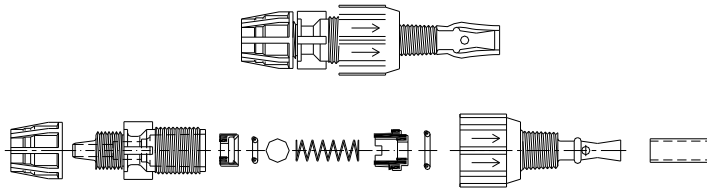


Figure 4: Injector valve

5) Referring to Figure 5 slide ceramic strainer weight on suction tubing first then remove the coupling nut from the strainer and slide onto tubing next. Push the end of the tubing onto the strainer and hand tighten the coupling nut. Hand-tighten only, do not use wrenches. **Note:** Immerse tubing in hot water to soften prior to pushing on fitting.

6) Install the strainer so it is off the bottom of the chemical container (1 to 2-inches (25-50mm)) and measure suction tubing length required. Cut tubing ends square and install on suction fitting of the pump. Hand-tighten only, do not use wrenches.

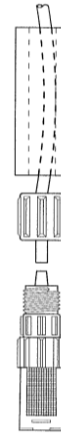


Figure 5: Ceramic-Weighted Strainer

5. Operation

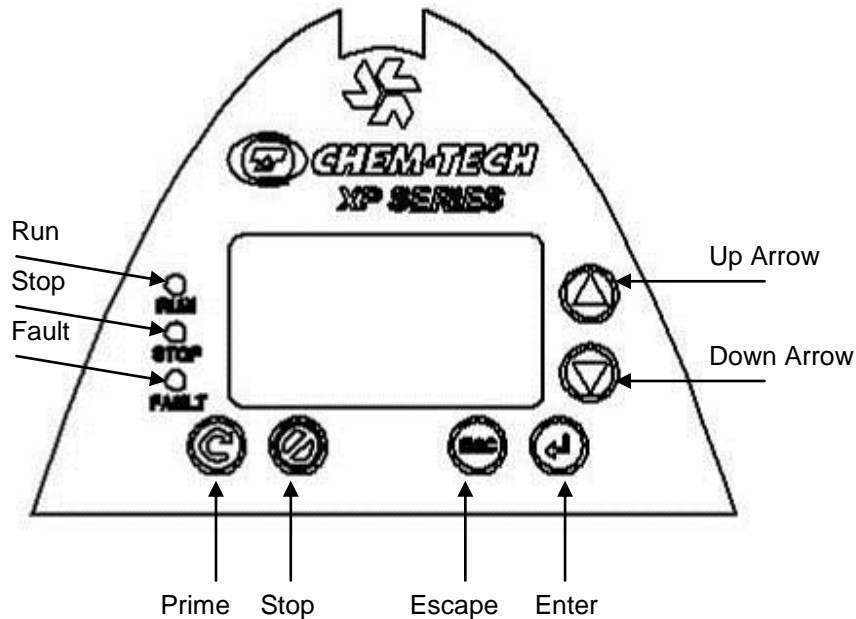
WARNING: Always make sure the voltage on the pump data plate matches the installation voltage before plugging the pump into a wall outlet or hooking up to an electrical supply. If you are unsure, have a licensed electrician inspect and install your pump.

AVERTISSEMENT: assurez-vous Toujours que le voltage sur la plaque de données de pompe correspond au voltage d'installation avant le fait de brancher la pompe dans une issue murale ou le fait d'agrafer aux réserves électriques. Si vous êtes peu sûrs, faites inspecter un électricien agréé et installez votre pompe.

If your application requires a Cycle Timer or Daily Timer pump operation you must set the time and day of week in the Configuration->Settings->Set Time menu. Because this pump uses a small battery to keep the time and day information it is recommended that the pump stay powered up initially for at least 24 hours to charge the battery once installed.

The front panel includes an LCD display, six menu driven pushbuttons, and three indicator lights. Below are the menu options that are available to the user to set the different pumping modes as well as system settings.

Use the UP, DOWN, ENTER, and ESCAPE buttons to navigate the different menu options.



Indicator Lights:

- Run:** Illuminated when the pump is running or idle
- Stop:** Illuminated when the pump is stopped by the external stop signal
- Fault:** Illuminated when a fault condition occurs

Button functions:

- Escape:** Use this button to go back to the previous screen
- Up/Down Arrow:** Use these buttons to scroll through the menus
- Prime:** Push and hold this button to prime at fixed speed (default 100%)
- Enter:** Use this button to choose/accept menu lines
- Stop:** Use this button to stop the pump from running

Pump Modes:

- Fixed Speed:** Pump operates at a constant speed based on percentage of full speed
- Cycle Timer:** Pump operates at set intervals and fixed speed based on percentage of full speed
- Daily Timer:** Pump operates at set intervals, on set days at set times of the day and fixed speed based on percentage of full speed
- Pulse:** Pump operates based on closed contact input pulse from the external connector pins
- 4-20mA:** Pump operates based on 4-20mA input signal from the external connector pins

Configuration:

Pump Settings:

- Prime Speed:** Sets the priming speed of the pump based on percentage of full speed
- Auto Resume:** Commands the pump to resume pumping when power is restored if power was lost while the pump was operating
- Set Time:** Set the system day and time
- Contrast:** Adjusts the display contrast
- Factory Reset:** Resets the pump to the default settings

Software Ver: Indicates software version

Troubleshoot: Shows various system inputs to aid startup issues

W-Meter Input:

W-Meter: Selects the type of water meter being used (dry contact or Hall Effect)

Volume/Kfact: Sets the water meter volume per pulse or K-factor

Flow Units: Sets the units for flow display (gallons or liters)

Relay Output:

Stop Input: Relay activates when the stop input is active

Low 4-20 Alarm: Relay activates when 4-20mA input drops below the low 4-20mA alarm point

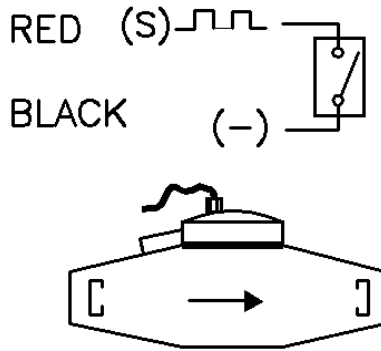
Hi 4-20 Alarm: Relay activates when 4-20mA input is above the high 4-20mA alarm point

Circuit Failure: Relay activates when a circuit failure is detected

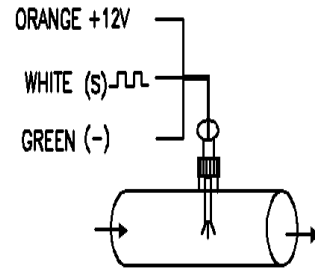
Pump Running: Relay activates when the motor is running

Wiring connections for the External I/O

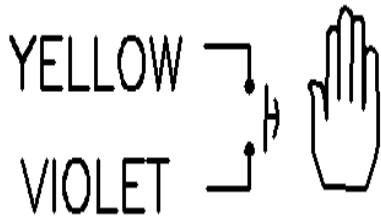
WIRE	FUNCTION
RED	4-20mA(+) / W-METER(+)
BLACK	4-20mA(-) / W-METER(-)
YELLOW	STOP
VIOLET	STOP
BROWN	RELAY OUT(-)
BLUE	RELAY OUT(+)
ORANGE	+12VDC
WHITE	HALL/Flow(SIG)
GREEN	GND.



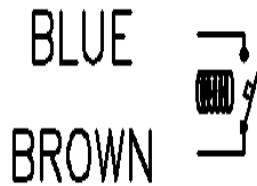
Dry contact water meter



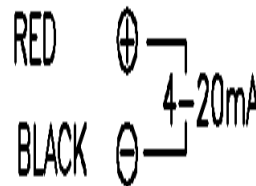
Hall-Effect water meter



Stop Input Connection



Relay Connection



4-20mA Connection

5.1. General

DANGER: DO NOT ATTEMPT TO FEED CHEMICALS WITHOUT FIRST CONSULTING YOUR CHEMICAL FEEDER DEALER OR CHEMICAL SUPPLIER. To avoid running out of chemical, follow a regular schedule of monitoring chemical supply.

AVERTISSEMENT: N'ESSAYEZ PAS DE NOURRIR DES PRODUITS CHIMIQUES SANS PREMIÈRE CONSULTATION DE VOTRE COMMERÇANT DE MANGEUR CHIMIQUE OU FOURNISSEUR CHIMIQUE. Pour éviter de manquer du produit chimique, suivez un programme régulier de contrôler des réserves chimiques.

CAUTION: Inspect peristaltic tubing frequently and replace when deterioration becomes apparent. Peristaltic tubing will eventually wear and break if neglected. This occurrence will cause chemical spillage and a potential for personal injury or damage to equipment. Always refer to chemical manufacturers recommendations with regards to safety and handling of hazardous or corrosive chemicals. Always wear protective clothing and safety glasses when working near chemical feed systems.

PRUDENCE: Inspectez la tuyauterie peristaltic souvent et remplacez quand la détérioration devient évidente. La tuyauterie de Peristaltic s'usera finalement et se cassera si négligé. Cette occurrence provoquera le renversement chimique et un potentiel pour la blessure personnelle ou nuira à l'équipement. Faites toujours allusion aux recommandations de fabricants chimiques en ce qui concerne la sécurité et la manipulation de produits chimiques les hasardeux ou corrosifs. Portez toujours des vêtements protecteurs et des verres de sécurité en travaillant près des systèmes de nourriture chimiques.

WARNING: Do not expose the pump or tubing to pressure exceeding the pressure rating on the pump nameplate.

AVERTISSEMENT: n'exposez pas la pompe ou la tuyauterie à la pression excédant l'estimation de pression sur la plaque de pompe.

6. Maintenance

NOTE: To get actual feed rates for specific settings, the output must be verified by measuring the volume output. To get the actual feed rate for specific settings, each pump must be calibrated for its flow. As with any peristaltic pump output varies with pressure and tubing condition. It is recommended that feed rates be verified at every tubing change and after every 250-hour. More critical applications require more frequent verification.

NOTE: NO USER SERVICEABLE COMPONENTS ARE INSIDE THE ENCLOSURE. IF THE POWER SUPPLY CORD BECOMES DAMAGED, IT MUST BE REPLACED BY PULSAFEEDER, ITS REPRESENTATIVE, OR A SIMILARLY QUALIFIED TECHNICIAN IN ORDER TO AVOID A HAZARD.

6.1. Tubing Removal

Always wear protective clothing and safety glasses when working on the chemical pump and refer to the chemical manufacturers' safety precautions.

- 1) Remove the power to the pump.
- 2) Relieve the system pressure and the drain discharge and suction tubing.
- 3) Loosen coupling nuts and remove the tubing from suction and discharge ports - see Figure 7a.

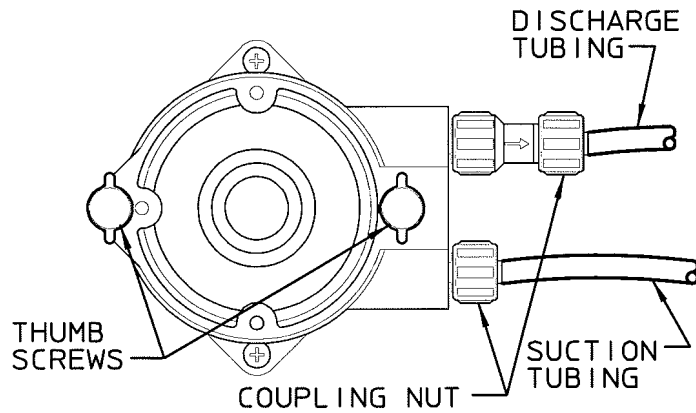


Figure 7a: Pump Head Assembly with Front Cover Attached

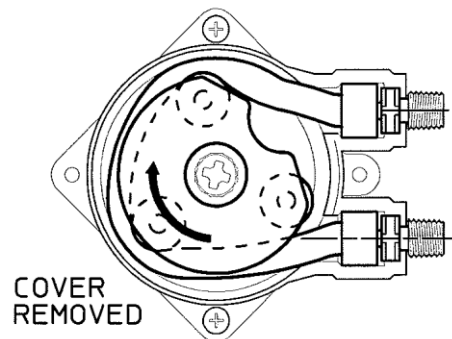


Figure 7b: Pump Head Assembly with Front Cover Removed

- 4) Remove the two thumb screws holding on the pump head cover and remove - See figure 7b above.
- 5) Remove pump head tube assembly by removing both connector fittings and pulling tubing straight out of the pump head. Tubing may retain a small amount of chemical.
- 6) Remove rotor assembly by pulling straight out of pump head.

6.2. Tubing Assembly Installation and Lubrication

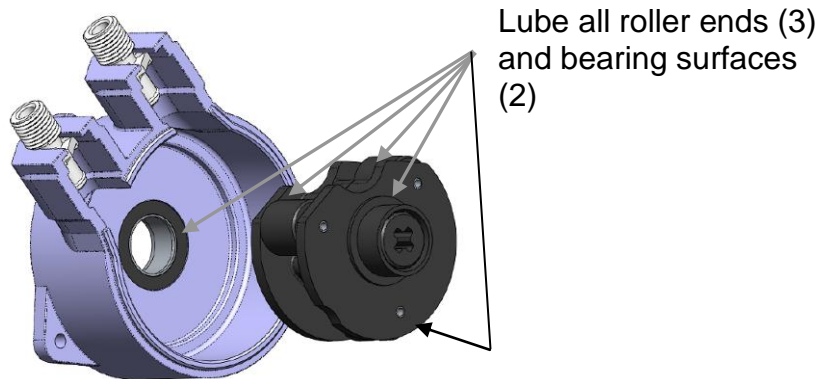


Figure 8: Pump Head w/ Rotor Assembly Removed

NOTE: Lubrication of rotor assembly should be performed at least once a year (residential service). Clean front and rear rotor bearings and surfaces with a clean shop cloth (item. No. 8, in assembly drawing on pg. 17). Lubricate with a PTFE thickened, medium viscosity, synthetic grease intended for plastic parts. Ref. Grease Kit (P/N J30257) – see Figure 8.

- 1) Reinstall the rotor assembly by aligning the cross in the rotor to the drive shaft cross and fully insert into pump head.
- 2) Use the Prime button and align the rotor assembly as shown in Figure 9a.

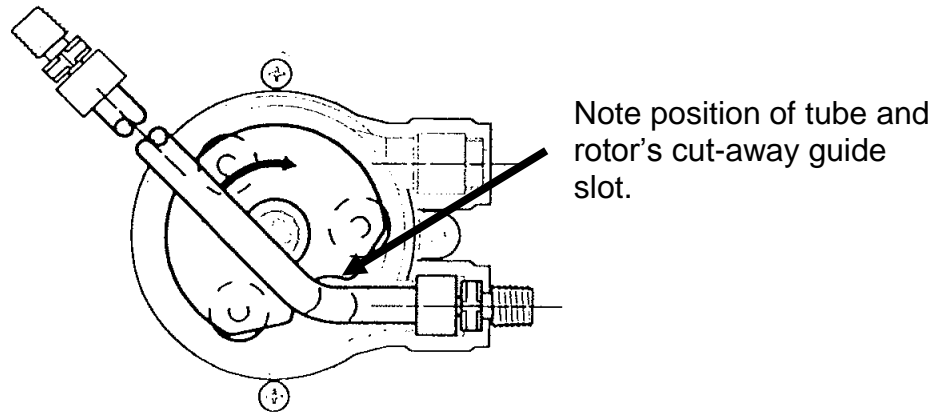
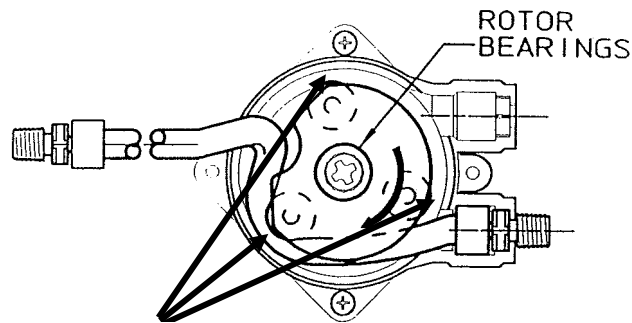


Figure 9a: Rotor Alignment at Start of Tube Installation

- 3) Insert one connector end of the tubing assembly into the bottom retaining slot in the pump head. Insert the tube through the guide slot in the rotor. Using caution, intermittently depress the Prime button and feed the tube around the pump head as the guide slot rotates. **Be very careful not to get any objects (fingers, ties, hair, etc.) close to the rotors and pump head as severe pinch points exist, see Figure 9b. Keep hands and fingers away from the rotor assembly while feeding the new tube.**



WARNING: Note severe pinch points between rollers and pump housing
AVERTISSEMENT: Notez des points de pincement sévères entre l'habitation de pompe et les rouleaux

Figure 9b: Feeding the new tube

When the rotor is positioned as in Figure 9c, release the Prime button. Insert the other connector into its retaining slot.

- 4) Align the pump head cover bearing bore with the rotor shaft and press into place.
- 5) Loosely reinstall the two thumb screws.

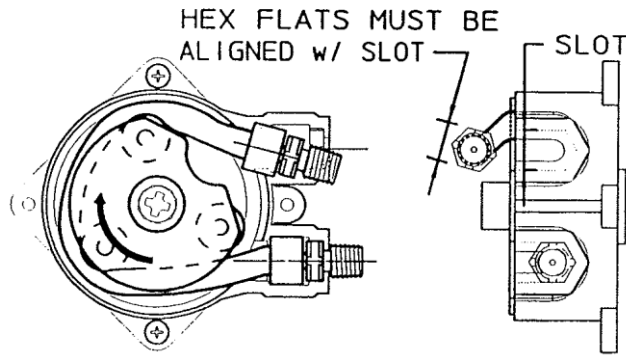


Figure 9c: Finishing the New Tube Installation

- 6) Using the Prime button, run the pump for several revolutions and then fully tighten the thumb screws hand tight.
- 7) Return the pump to service by following the procedures in the installation section.

6.3. Pools and Spas

Pumps carrying the “ETL Sanitation” (tested to NSF Standard-50) marks are listed for swimming pools, spas and hot tubs, and when proper materials are selected, are capable of handling but not limited to the following chemical solutions:

12.0% ALUMINUM SULPHATE,	5.0% SODIUM CARBONATE,
2.0% CALCIUM HYPOCHLORITE,	10.0% SODIUM HYDROXIDE,
12.5% SODIUM HYPOCHLORITE,	10.0% HYDROCHLORIC ACID.

To meet the requirements of the “ETL Sanitation Mark” qualification, (1) Replace the peristaltic tubing (as described above), (2) Grease the rotor bearing and (3) Oil the three rotor rollers at intervals of 500-hours operation time (actual running time).

7. Policies and Procedures

7.1. Manufacturers Product Warranty

PULSAFEEDER warrants equipment of its manufacture to be free of defects in material or workmanship. Liability under this policy extends for 24-months from the date of shipment. The manufacturer’s liability is limited to repair or replacement of any failed equipment or part which is proven defective in material or workmanship upon manufacturers’ examination. This warranty does not include removal or installation costs and in no event shall the manufacturers liabilities exceed the selling price of such equipment or part.

The manufacturer disclaims all liability for damage to its products through improper use, installation, maintenance, or attempts to operate such products beyond their functional capacity, intentionally or otherwise, or any unauthorized repair. Replaceable elastomeric parts, including peristaltic tubing, are covered for 12 months. The manufacturer is not responsible for consequential or other damages, injuries, or expense incurred through the use of its products.

The above warranty is in lieu of any other warranty, either expressed or implied. The manufacturer makes no warranty of fitness or merchantability. No agent of ours is authorized to provide any warranty other than the above.

For warranty and service matters within the European Union, contact the seller or:

**PULSAFEEDER, INC.
STEIGAR 24
NL 1351 AB ALMERE
NETHERLANDS**

7.2. Returns

The Customer Service Department will issue a Return Authorization (RA) number for all returns.

The following information will be required:

1. Billing and a ship-to address.
2. Model and serial number.
3. Contact name and phone number.
4. Reason for return.
5. Purchase order (where applicable).
6. RA number on outside of the carton.
7. Type of chemical that was pumped.

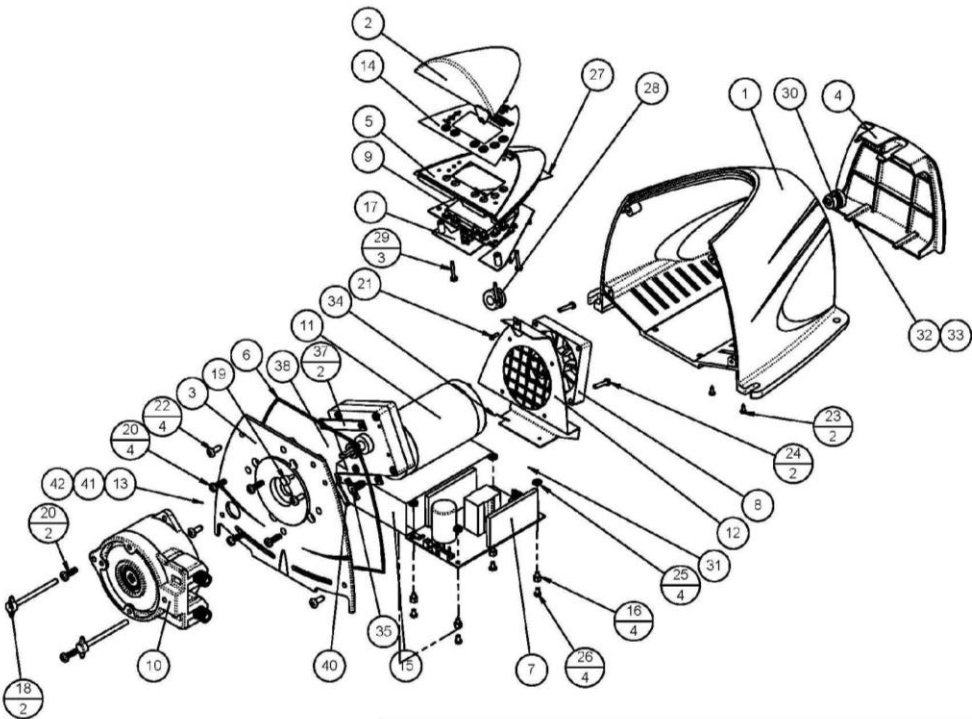
All material must be returned freight prepaid. All merchandise must be properly packaged and free of any corrosive, toxic, or otherwise hazardous chemical. All items returned must reference Return Authorization number.

7.3. Credits

No equipment will be accepted beyond six months after date of shipment from the factory. Only unused and undamaged equipment will be accepted for return to stock. All credits are based on acceptance of materials as new and unused by our inspection personnel. A restocking fee will apply. All equipment returned for credit must have an RA number and be returned freight prepaid.

I. Pump Assembly

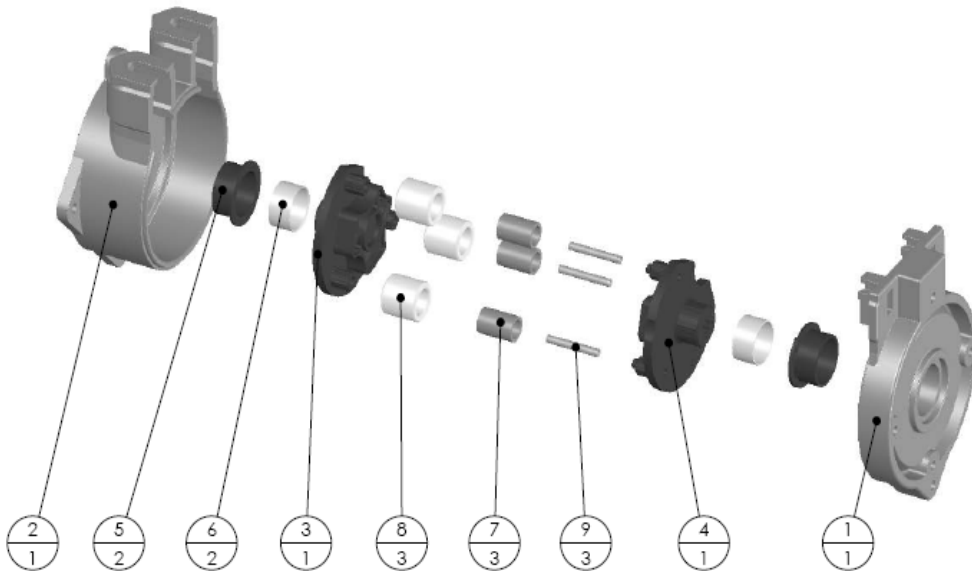
REVISIONS			
REV.	DESCRIPTION	DATE	A/PROVED
A	RELEASE (ECO # 00187)	09-29-08	MD



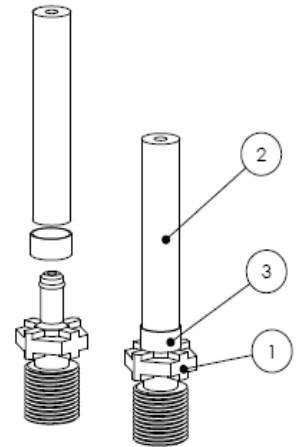
BILL OF MATERIAL			
ITEM NO.	PART NUMBER	DESCRIPTION	Default QTY.
1	J63000	HOUSING, BACK	1
2	J63002	CONTROL COVER (CLEAR)	1
3	J63068	ENCLOSURE, FRONT XPV	1
3	J63003	ENCLOSURE, FRONT XPV W/O I/O OPTION	1
4	J63004	ENCLOSURE, SPLASH HOOD	1
5	J63015	ENCLOSURE, CONTROL PANEL W/TIMER	1
6	J63022	O-RING	1
7	J63054	POWER SUPPLY, 24VDC, 3.1A, 75W	1
8	J63055	FAN, 70 X 70 X 15mm 12VDC	1
9	J63053	CONTROL PCB ASSEMBLY	1
10	NC91XXXXX-XXXXX	HEAD/ROLLER ASSEMBLY	1
11	J63006	MOTOR, 24V DC 1/3HP 60RPM	1
12	J63058	BAFFLE/FAN PLATE	1
13	J63072	I/O CABLE ASSY, INTERNAL	1
14	J63050	OVERLAY, CONTROL PANEL, XPV	1
15	J63064	ISOLATOR, POWERSUPPLY, XP	1
16	J63070	STANDOFF, 3/16" LNG, 6-32, M-F	4
17	J63071	MOTOR DRIVE PCB ASSY	1
18	NC190000-000	THUMBSCREW W/KNOB	2
19	L1900500-000	THUMB SCREW, #6-32 X .375	1
20	L9806300-188	#10-32 X .62 PHMS	6
21	U0900857	SCREW, #6 X .38 TYPE-BT	1
22	L9809602-188	SCREW(SST), #8 X 1/2 LNG TYPE-BT (TYPE-25)	4
23	06-203-07	#6 X .38 LNG PHMS TYPE A	2
24	L9800200-188	SCREW, #8 X .75 TYPE-BT	2
25	06-148-00	6-32 NUT	4
26	U0812955	6-32 X .25 PHMS	4
27	J63093	ISOLATOR, PCB, XP	1
28	06-135-00	RUBBER GROMMET	1
29	J37019	SCREW(SST), #6 X .575 LNG TYPE-BT (TYPE-25)	3
30	L9900700-000	STRAIN RELIEF	1
31	J63061	CABLE, POWER SUPPLY TO MAIN (NOT SHOWN)	1
32	13-003-12	POWER CORD ASSY, 115V (NOT SHOWN)	1
33	13-003-13	POWER CORD ASSY, 230V (NOT SHOWN)	1
34	J63100	JUMPER, GROUND	1
35	J63107	OPTICAL SPEED SENSOR ASSEMBLY	1
37	J63110	STRAP, SPACER	2
38	J63112	ASSY, DISK, HUB, ENCODER	1
39	J63113	WASHER, ENCODER SPACING	1
40	U0020522	3M DOUBLE SIDED ADHESIVE TAPE	.5 IN
41	06-138-03	NUT, .38 NPT, LIQUID TITE (NOT SHOWN)	1
42	27905	GASKET, .94 X .63 X .06 THK (NOT SHOWN)	1

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±.004 ANGULAR ± .5° X.XXX ±.005in.	DRAWN	08-04-08	
INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.5M-2001		09-29-08	
<p>PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF PULSAFEEDER. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF PULSAFEEDER IS PROHIBITED.</p>	<p>TITLE: PUMP ASSEMBLY, XP VARIABLE, W/ I/O</p>		<p>J63077</p>
MATERIAL:			
FINISH:			
DO NOT SCALE DRAWING			

II. Pump Head and Tube Assemblies



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	NC020001-PVC	HEAD(CLR-PVC), FRONT PUMP	1
2	NC020002-PVC	HEAD(CLR-PVC), CTP REAR PUMP	1
3	NC400003-PRC	ROTOR,FEMALE BLK	1
4	NC400004-PRC	ROTOR,MALE BLK	1
5	NC550002-NYL	BRG,FLGD .8765X1.003X.500	2
6	NC550001-188	BRG(SST),.81X.888X.468LG SLEEVE	2
7	NC550003-OLT	BRG(BRZ),.375 X .503 X.750-LG.	3
8	NC430003-NYL	ROLLER(NYL),.508X.7735X.745LG	3
9	L9807300-188	PIN(SST),.156X1.12-LG ROLL	3



ITEM NO.	PART NUMBER	DESCRIPTION
1	HEAD TUBE FITTING	PVC OR NORYL
2	HEAD TUBE	NORPRENE
3	CLAMP RING	NYLON

Date	Maintenance Performed

III. Notes:

IV. Installation (Use gridlines to map out pump installation)

8. Parts

Chem-Tech XP Series Spare Parts

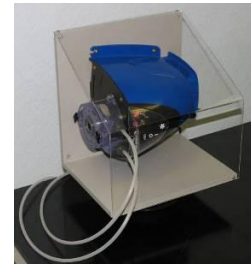


U8800712 1/4" OD Tubing Injection valve assembly

U8800705 3/8" OD Tubing injection valve assembly



Strainer assembly
J60609 (1/4" Tubing)
J60664 (3/8" Tubing)



J63049 Optional Weather shield.

03-174-02 Injection valve 1/2" MNPT adapter

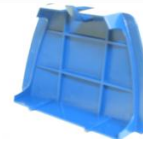


NC110002 PVC Suction and discharge Coupling Nut, .25 NPT



NC110016-000 Suction and discharge tubing Sleeve, .25 OD Tube

J63004 Rain Shield



U0818286 1/4" OD Suction and discharge tubing 15 feet (4.5m) PE white/translucent

U0818994 1/4" OD Suction and discharge tubing 15 feet (4.5 m) optional, Black/UV resistant



U0810294 3/8" OD Suction and discharge tubing 15 feet (4.5m) PE white/translucent

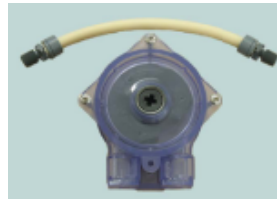
U0818502 3/8" OD Suction and discharge tubing 15 feet (4.5 m) optional, Black/UV resistant

J63135 3/8" OD tubing adapter from 1/4" FNPT



Keep On Pumping Kits

The KOPkit part number is located behind the rain shield on the pumps data label.



When you need a part, you've got it! A KOPkit can help you cut downtime and put you back in business fast. Use KOPkits also for preventive maintenance, to ensure continuous high performance from your Pulsafeeder metering pump.

Save money too, buying parts in KOPkits instead of ordering individual parts. KOPkits include the pump head, the rotor, new hardware and a replacement tube

PULSAFEEDER
 GENUINE PARTS