

Department	HydroLogic		Doc#	SOP – Injector Maintenance	
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Standard Operating Procedure (SOP); Stenner Injector Maintenance

1. Purpose

The purpose of this SOP is to aid users in the general maintenance of the HyperLogic [Stenner] Chemical Injector; Hawthorne HGC741675 or similar.

2. Applicable To

This SOP is applicable to all HyperLogic Commercial Series RO systems [1-12 membranes] which feature the use of a 7.5/15-gallon Chemical Injector system by 'Stenner'; Classic Series (HGC741675) or similar.

3. Prerequisites

Ensure you follow all state & federal guidelines for personal workplace safety prior to disassembly and/or maintenance of your HyperLogic equipment & related consumables. AntiScalant injector tank should be serviced annually to maintain optimal performance.

4. Materials/Reference

Suggested tools/materials required for this operation include, but may not be limited to, the following:

- PPE Personal Protective Equipment
- Reference: Appropriate SDS Sheet if chemicals are present in the tank
- HyperLogic Maintenance Log sheet
- Pliers, #2 Phillips Screwdriver & Knife

- Ref. SOP Chemical Injector
- Assorted Stenner Parts (as required)
- Stenner Classic Series Owner's Manual
- Clean, Warm Water & Bucket

5. Procedure

Strictly adhere to **ALL** Safety Information contained within the 'Stenner Classic Series Installation and Maintenance Manual.' The generalized steps for general maintenance of the HyperLogic [Stenner] Chemical Injector are as follows:

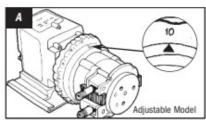
- a. General Preparation To be completed prior to any/all steps below
 - i. Place RO in 'Standby' or disconnect from power. Shut off feed water source to the RO Prefiltration. Ensure all RO Pressure & Flow Gauges read "0" & water lines to the Prefiltration have been depressurized. Turn off power switch located on top of the Stenner Motor.
 - ii. Remove the tank cap. Empty remaining chemical from tank.
 - 1. Note: Some users pump, siphon or pour remaining fluid into an approved container for proper disposal in accordance with the appropriate chemical SDS Sheet.
 - iii. Gently clean the inside of the injector tank with a fine scrub brush and warm water. Thoroughly rinse upon completion & dispose of cleaning water properly.

b. #1 Pump Tube - Replace Annually

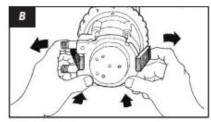
- i. Complete steps in Section 'a.' above
- ii. Parts Required may include the #1 Pump Tube, Nuts & Ferrules
 - 1. Hawthorne HGC741676 #1 Pump Tube Pack
- iii. Refer to diagram below from 'Stenner Classic Series Installation and Maintenance Manual'
- iv. <u>Disassembly</u> Step-By-Step instructions can be found in the 'Stenner Classic Series Installation and Maintenance Manual.'

TUBE REMOVAL Illustrated Basic Steps

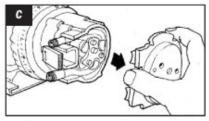
NOTICE: Refer to written instructions for complete steps.



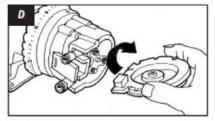
Adjustable model must be on setting 10



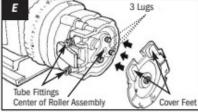
Open latches



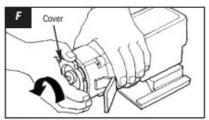
Remove cover



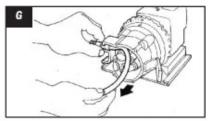
Invert cover



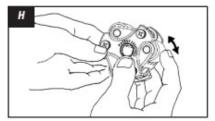
Align cover feet near tube fittings



Collapse roller assembly



Remove tube

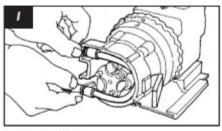


Check rollers

v. <u>Assembly</u> – Step-By-Step instructions can be found in the 'Stenner Classic Series Installation and Maintenance Manual.'

TUBE INSTALLATION & CENTERING Illustrated Basic Steps

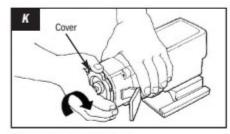
NOTICE: Refer to written instructions for complete steps.

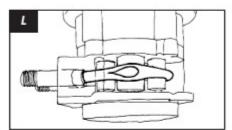


Center of Roller Assembly Cover Feet

Place new tube

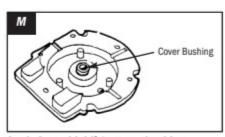
Align cover feet near the bottom

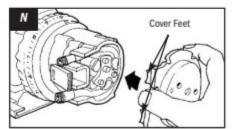




Expand roller assembly

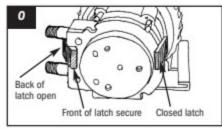
Confirm roller assembly is expanded

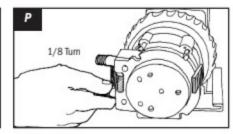




Apply Aquashield® to cover bushing

Install cover feet first





Prepare to center tube

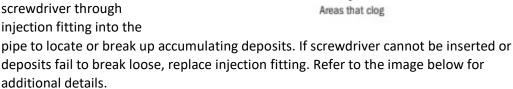
Center tube

vi. If this concludes your general maintenance, please proceed to Section 'e.' If not, please proceed to Section 'c' below.

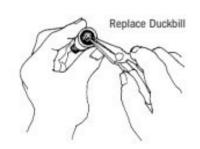
c. Cleaning Point of Injection – twice a Year

Note: Refer to all 'Safety Information' as outlined in the 'Stenner Classic Series Installation and Maintenance Manual.'

- i. Complete steps in Section 'a.' above
- Identify any parts that may need replacement; Refer to 'Stenner Classic Series ii. Installation and Maintenance Manual' – Check Valves Section for additional details.
- iii. Refer to 'Injection Check Valve' diagram below for disassembly details.
- iv. Depressurize pump discharge line.
- ٧. Loosen and remove connecting nut and ferrule from the injection check valve or injection fitting to disconnect discharge tubing. Remove & clean Duckbill with warm water; replace it annually.
- vi. Insert a #2 Phillips head screwdriver through injection fitting into the



- vii. Replace discharge line if cracked or deteriorated. If the end is clogged, cut off the blocked section of discharge line. Refer to image below.
- viii. Replace ferrule/nut, if required, and tighten connecting nut finger tight.
- ix. If this concludes your general maintenance, please proceed to Section 'e.' If not, please proceed to Section 'd' below.

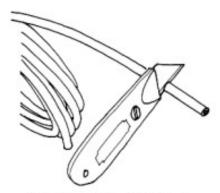


Injection Check Valve

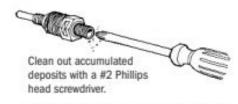
Check

Valve Body

Injection Fitting



Cut off the calcified or blocked section.



Periodic inspection and cleaning of the point of injection will maintain proper pump operation and provide maximum tube life.

d. **General Servicing** – Perform as needed

Note: Refer to all 'Safety Information' as outlined in the 'Stenner Classic Series Installation and Maintenance Manual.'

- i. Complete steps in Section 'a.' above
- ii. Identify any parts that may need replacement; Refer to 'Stenner Classic Series Installation and Maintenance Manual'
- iii. Inspect & lubricate select Motor, Feed Rate Control & Pump Head parts as required:

 Note: May require the use of AquaShield lubricant.
 - 1. Gears & Gear Posts; Clean & Lubricate; Replace if necessary
 - 2. Variable Cam & Cam Slot; Clean & Lubricate
 - 3. Adjustment Ring; Clean & Lubricate
 - 4. Index Plate; Inspect; Replace if necessary.
 - 5. Index Pin & Lifter Assembly; Inspect; Replace if necessary.
- iv. Inspect all motor electrical for signs of wear and/or corrosion; replace as required.
- v. If this concludes your general maintenance, please proceed to Section 'e.'
- e. **Batching & Operation** *Operating & Inspecting for leaks*
 - i. Restore Power and Water to RO.
 - ii. Rebatch appropriate chemical to Injector. Replace the tank cap once filled with mixture.
 - iii. Turn on the power switch located on top of the Stenner Motor.
 - iv. Verify proper injection pump rate & adjust your 'injection rate dial ring' accordingly.
 - v. Record Stenner Injector maintenance performed on 'HyperLogic Maintenance Log' sheet.
- f. Stenner Support Additional Stenner support can be found at
 - 1. www.stenner.com
 - 2. USA and Canada 800.683.2378, International 904.641.1666







END OF SOP DOCUMENT

Email hypertechsupport@hydrologicsystems.com