Everpure KleenSteam® Water Filters

Installation, Operation and Maintenance Instructions

Cleveland Range, Inc.
1333 East 179th Street
Cleveland, Ohio 44110

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EVERPURE, INC.
680 Blackhawk Drive
Westmont, IL. 60559-9005

Phone: 708-654-4000
Fax: 708-654-1115
Technical Service: 800-942-1153

READ THESE IMPORTANT POINT BEFORE INSTALLING THIS KLEENSTEAM® SYSTEM:

1. Always use a minimum 3/8" OD copper tubing from the outlet of the Kleensteam unit to your steamer.
2. Use the water from the Kleensteam unit only on steamer feed and make-up water.
   - ❖ DO NOT TREAT CONDENSATE COOLING WATER.

Follow these step-by-step instructions!

Do not make any disconnection until you have inspected the contents of the KleenSteam unit carton. You should have:

System Part No: 9797-50

- 4CB5 Cartridge P/N: 9617-11 (1 pack)
- AR-10 Acidulent Cartridge P/N: 9496-10 (1 pack)
- ScaleKleen 7oz. Packet P/N: 9796-20 (24 pack)
- Dip Tube P/N: 3080-40

System Part No: 9797-00

- CV Cartridge P/N: 9625-01 (1 pack)
- AR-10 Acidulent Cartridge P/N: 9496-10 (1 pack)
- ScaleKleen 2.2 lb. Packet P/N: 9798-01 (6 pack)
- Dip Tube P/N: 3080-40

If you do not have these components, do not attempt to install this system!
Contact your local Everpure Master Distributor for assistance.

1. Shut off power to the steamer.
2. Shut off the inlet water to the steamer at the supply valve.
3. Attach the plate-mounted Kleenstem system to a suitable structure in a visible location. 16" on center holes are provided on the mounting plate. Use a substantial mounting screw or nut and bolt. THIS SYSTEM WEIGHS 25 POUNDS WHEN OPERATIONAL.
4. Attach inlet of the Kleensteam unit to a COLD water supply line only. Hot water will damage the Kleensteam unit and will void the warranty. Use a minimum of 3/8" tubing, keeping the tubing run to the steamer under 20 feet.
5. Attach only copper or stainless steel tubing from the outlet of the Kleensteam® system to the inlet feed/makeup waters connection on your steamer. DO NOT CONNECT TO CONDENSATE COOLING LINE.
6. Insert CV filter cartridge into QC7I head, as directed on the cartridge label.
7. Unscrew the clear bowl and insert the AR-10 cartridge into the center port of the AR-X head. The friction fit between the cartridge and port should allow the cartridge to be suspended while placing the clear bowl over the cartridge and screwing it into place on the head. NOTE: The AR-10 must be replaced when the level of the white material drops below ¼" in depth. Take care not to block the Kleensteam® unit from view when installing.
8. With the supply water to the Kleensteam® unit off, rotate the valve handle on the CV cartridge head in a clockwise manner until it stops.
9. Open the activation valve on the CV cartridge head, and attach tubing to the outlet of the valve, or be prepared to collect the water from the outlet of the activation valve with a bucket.
10. **Turn on the inlet supply water and activate the CV cartridge to drain (or bucket) at full force for a full 5 minutes. This will set the filtering media, ensuring maximum filter cartridge life.**
11. After activation, close the activation valve handle in a clockwise manner until the water stops.
12. Depress red pressure relief valve on the AR-X head until water flows out around the red button.
13. Inspect Kleensteam® unit for leaks, and correct as required.
14. Turn on power to steamer.

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WATER FILTER INSTALLATION DIAGRAM MODEL 21-CET-8

WHEN RECOMMENDING A WATER FILTER, REMEMBER THE FOLLOWING POINTS,

FILTERS MUST BE PROPERLY MAINTAINED TO BE EFFECTIVE

FOLLOW CLEVELAND RANGE DESCALING PROCEDURES AND USE DISSOLVE DESCALING SOLVENT

PERIODIC INSPECTION OF THE GENERATOR IS RECOMMENDED

REQUEST A WATER SAMPLE TO ENSURE THE CONTENTS OF THE WATER ARE WITHIN THE FILTERS SPECIFICATIONS

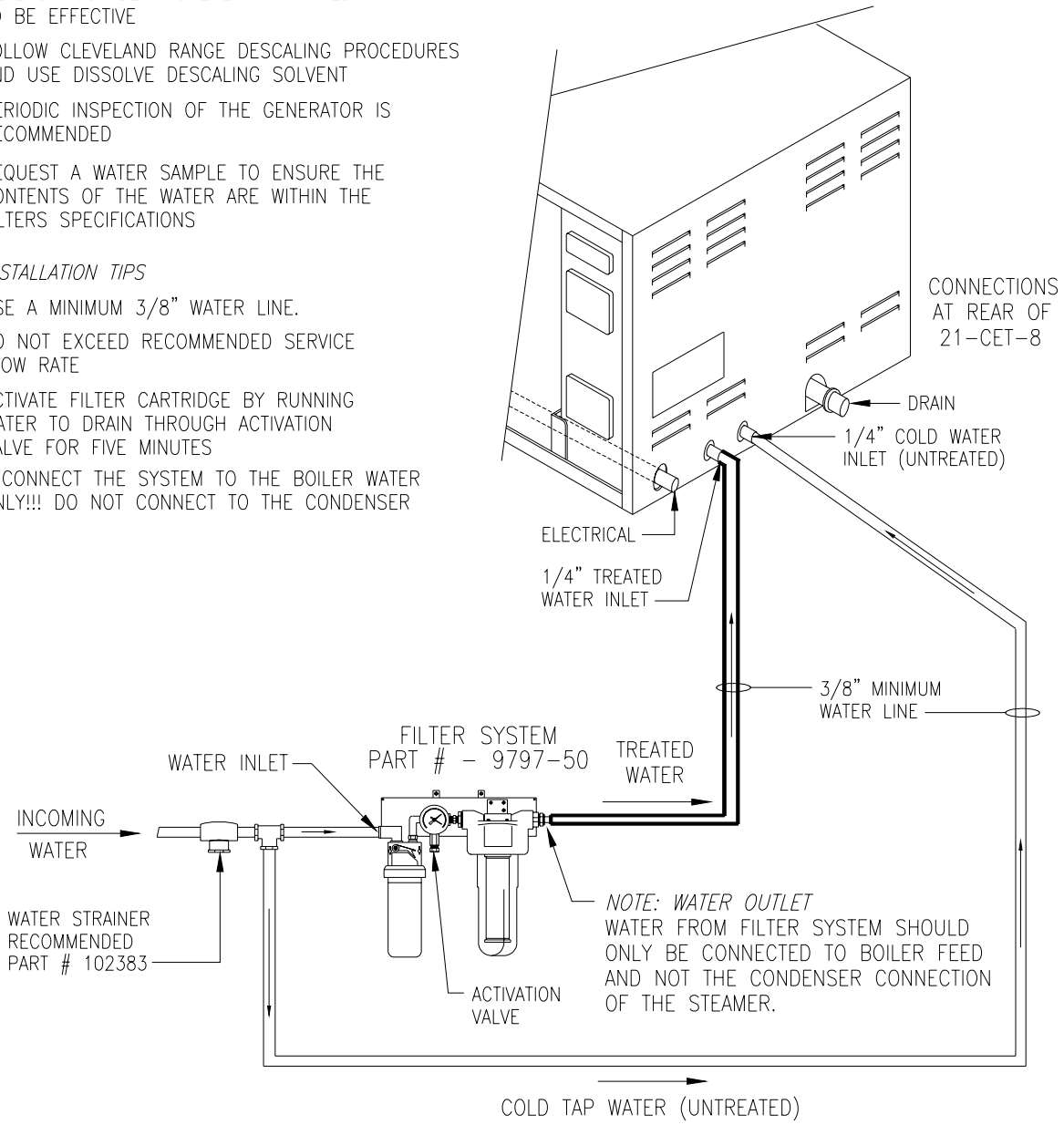
INSTALLATION TIPS

USE A MINIMUM 3/8" WATER LINE.

DO NOT EXCEED RECOMMENDED SERVICE FLOW RATE

ACTIVATE FILTER CARTRIDGE BY RUNNING WATER TO DRAIN THROUGH ACTIVATION VALVE FOR FIVE MINUTES

* CONNECT THE SYSTEM TO THE BOILER WATER ONLY!!! DO NOT CONNECT TO THE CONDENSER



WATER FILTER INSTALLATION DIAGRAM MODEL 21-CET-16

WHEN RECOMMENDING A WATER FILTER, REMEMBER THE FOLLOWING POINTS,

FILTERS MUST BE PROPERLY MAINTAINED TO BE EFFECTIVE

FOLLOW CLEVELAND RANGE DESCALING PROCEDURES AND USE DISSOLVE DESCALING SOLVENT

PERIODIC INSPECTION OF THE GENERATOR IS RECOMMENDED

REQUEST A WATER SAMPLE TO ENSURE THE CONTENTS OF THE WATER ARE WITHIN THE FILTERS SPECIFICATIONS

INSTALLATION TIPS

USE A MINIMUM 3/8" WATER LINE.

DO NOT EXCEED RECOMMENDED SERVICE FLOW RATE

ACTIVATE FILTER CARTRIDGE BY RUNNING WATER TO DRAIN THROUGH ACTIVATION VALVE FOR FIVE MINUTES

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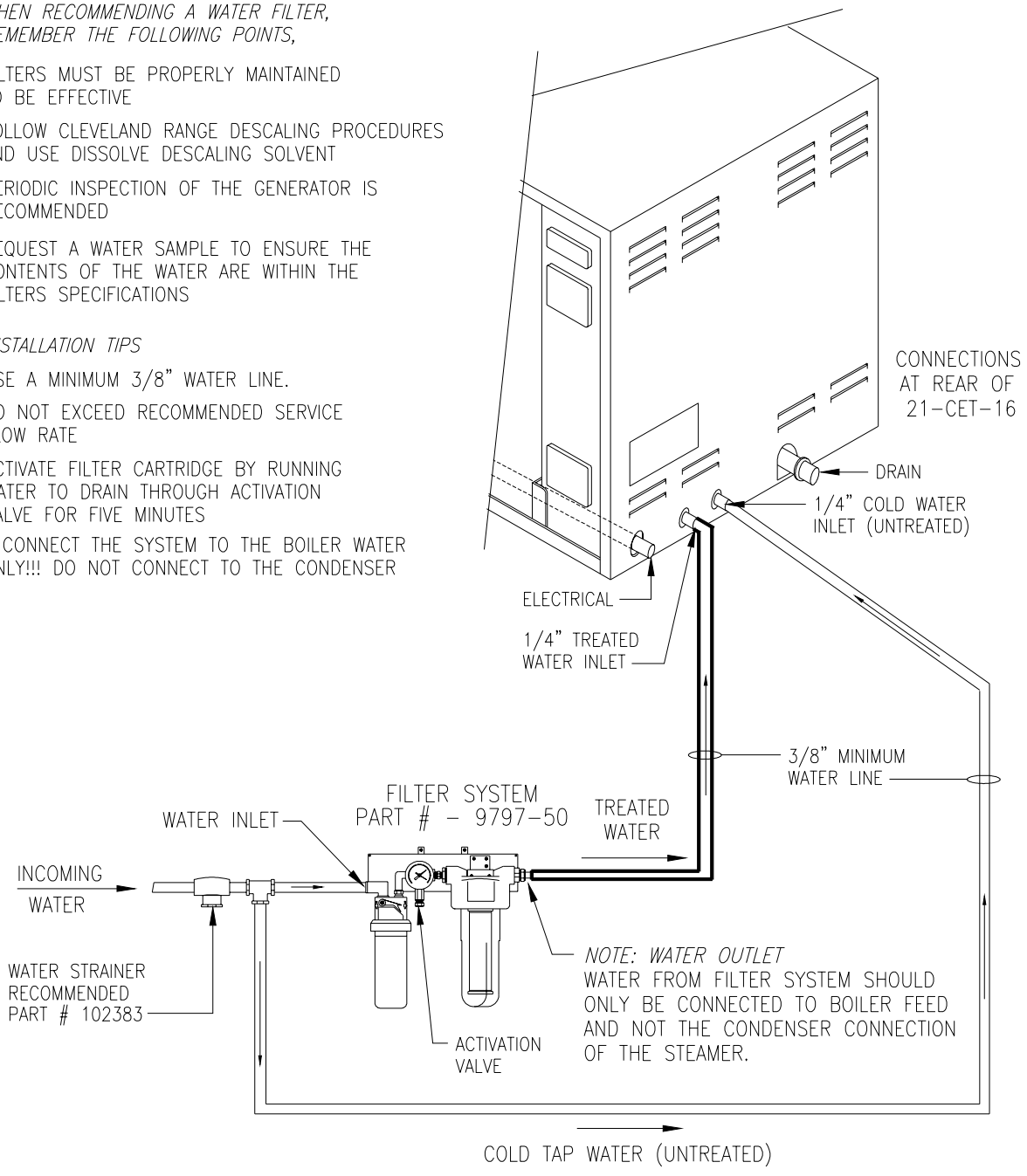


WATER FILTER INSTALLATION DIAGRAM MODEL 21-CGA-5

WHEN RECOMMENDING A WATER FILTER, REMEMBER THE FOLLOWING POINTS,

FILTERS MUST BE PROPERLY MAINTAINED TO BE EFFECTIVE

FOLLOW CLEVELAND RANGE DESCALING PROCEDURES AND USE DISSOLVE DESCALING SOLVENT

PERIODIC INSPECTION OF THE GENERATOR IS RECOMMENDED

REQUEST A WATER SAMPLE TO ENSURE THE CONTENTS OF THE WATER ARE WITHIN THE FILTERS SPECIFICATIONS

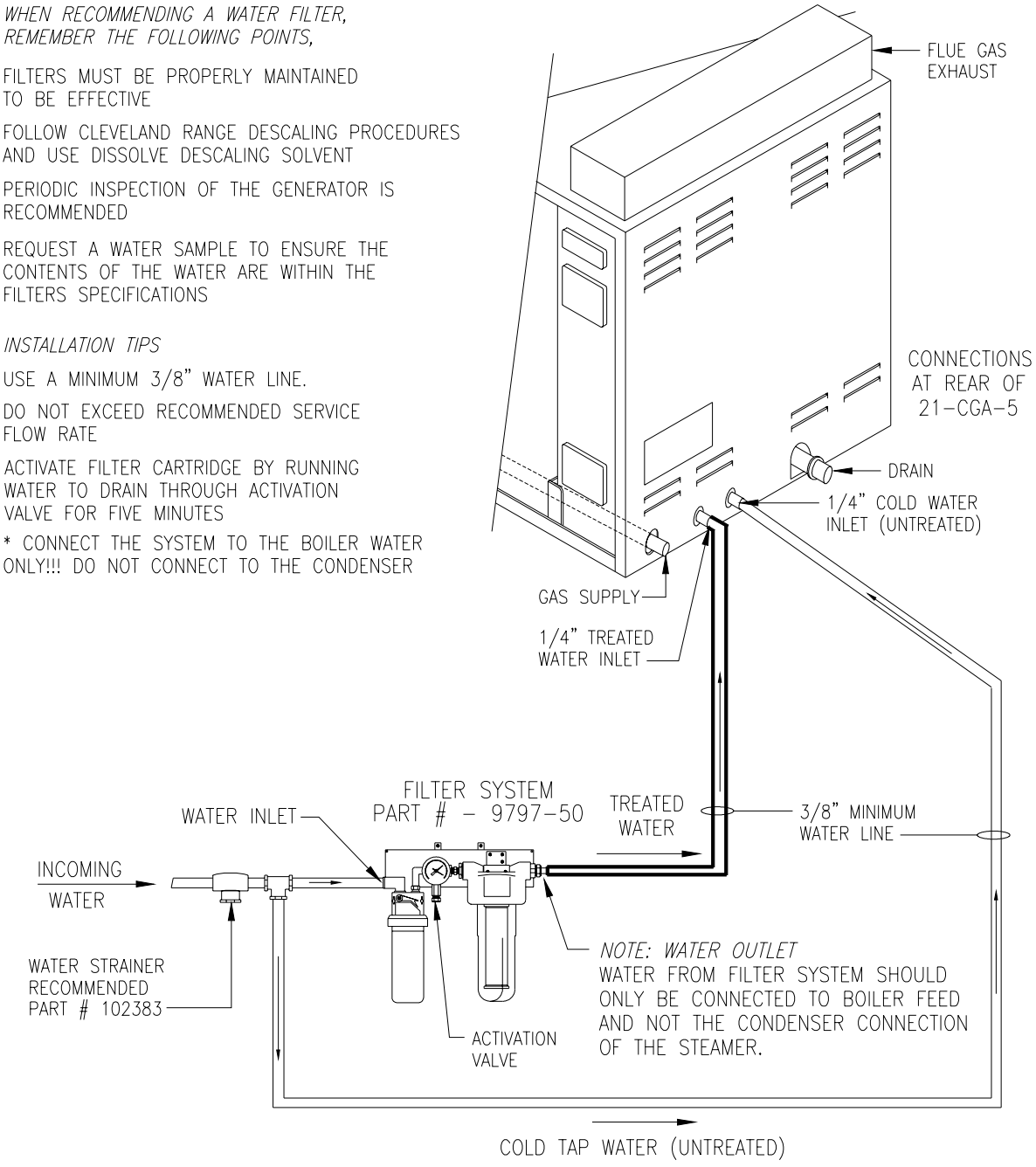
INSTALLATION TIPS

USE A MINIMUM 3/8" WATER LINE.

DO NOT EXCEED RECOMMENDED SERVICE FLOW RATE

ACTIVATE FILTER CARTRIDGE BY RUNNING WATER TO DRAIN THROUGH ACTIVATION VALVE FOR FIVE MINUTES

* CONNECT THE SYSTEM TO THE BOILER WATER ONLY!!! DO NOT CONNECT TO THE CONDENSER



WATER FILTER INSTALLATION DIAGRAM MODEL 24-CGA-10

WHEN RECOMMENDING A WATER FILTER, REMEMBER THE FOLLOWING POINTS,

FILTERS MUST BE PROPERLY MAINTAINED TO BE EFFECTIVE

FOLLOW CLEVELAND RANGE DESCALING PROCEDURES AND USE DISSOLVE DESCALING SOLVENT

PERIODIC INSPECTION OF THE GENERATOR IS RECOMMENDED

REQUEST A WATER SAMPLE TO ENSURE THE CONTENTS OF THE WATER ARE WITHIN THE FILTERS SPECIFICATIONS

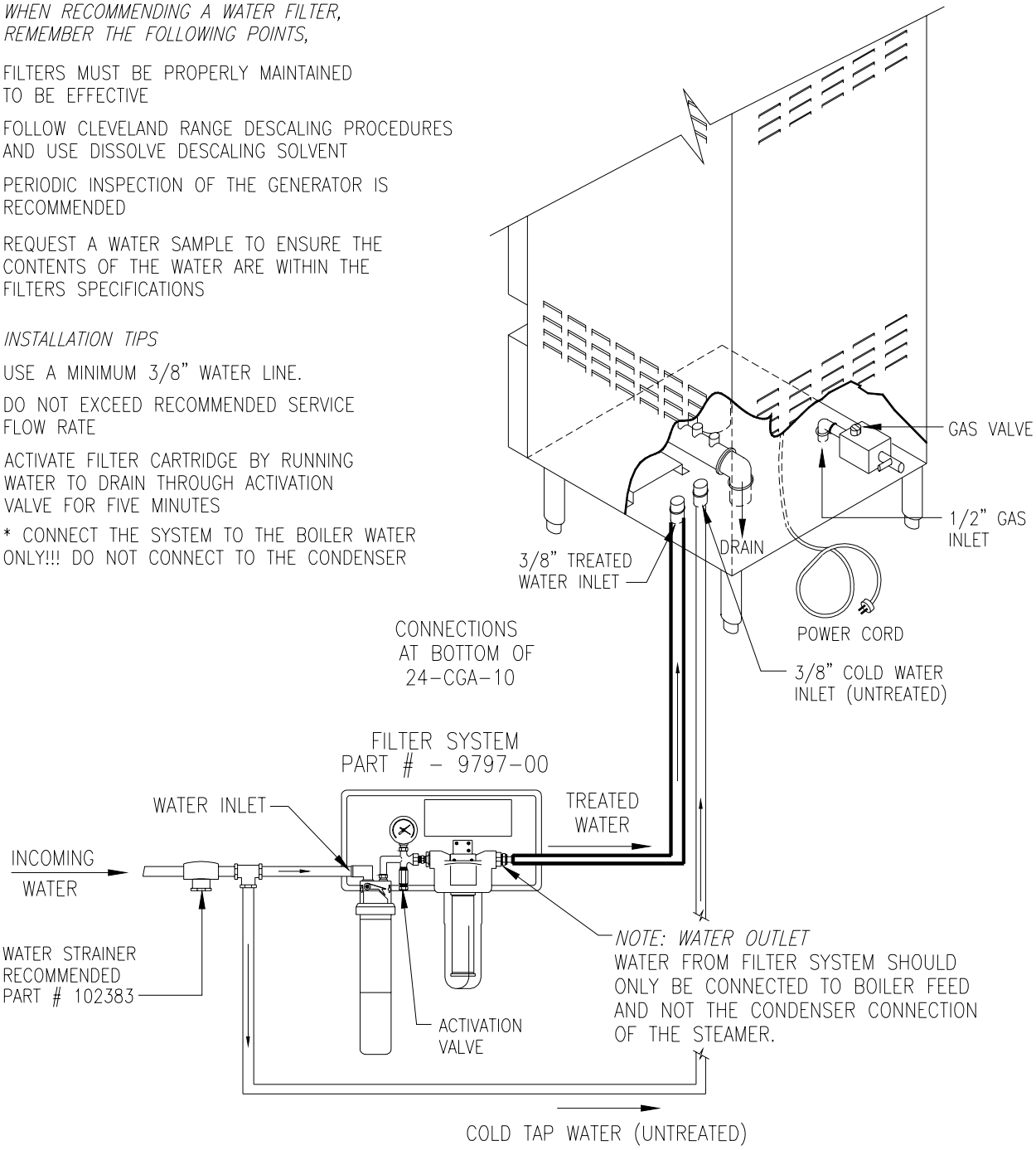
INSTALLATION TIPS

USE A MINIMUM 3/8" WATER LINE.

DO NOT EXCEED RECOMMENDED SERVICE FLOW RATE

ACTIVATE FILTER CARTRIDGE BY RUNNING WATER TO DRAIN THROUGH ACTIVATION VALVE FOR FIVE MINUTES

* CONNECT THE SYSTEM TO THE BOILER WATER ONLY!!! DO NOT CONNECT TO THE CONDENSER



WATER FILTER INSTALLATION DIAGRAM MODEL 24-CEA-10

WHEN RECOMMENDING A WATER FILTER, REMEMBER THE FOLLOWING POINTS,

FILTERS MUST BE PROPERLY MAINTAINED TO BE EFFECTIVE

FOLLOW CLEVELAND RANGE DESCALING PROCEDURES AND USE DISSOLVE DESCALING SOLVENT

PERIODIC INSPECTION OF THE GENERATOR IS RECOMMENDED

REQUEST A WATER SAMPLE TO ENSURE THE CONTENTS OF THE WATER ARE WITHIN THE FILTERS SPECIFICATIONS

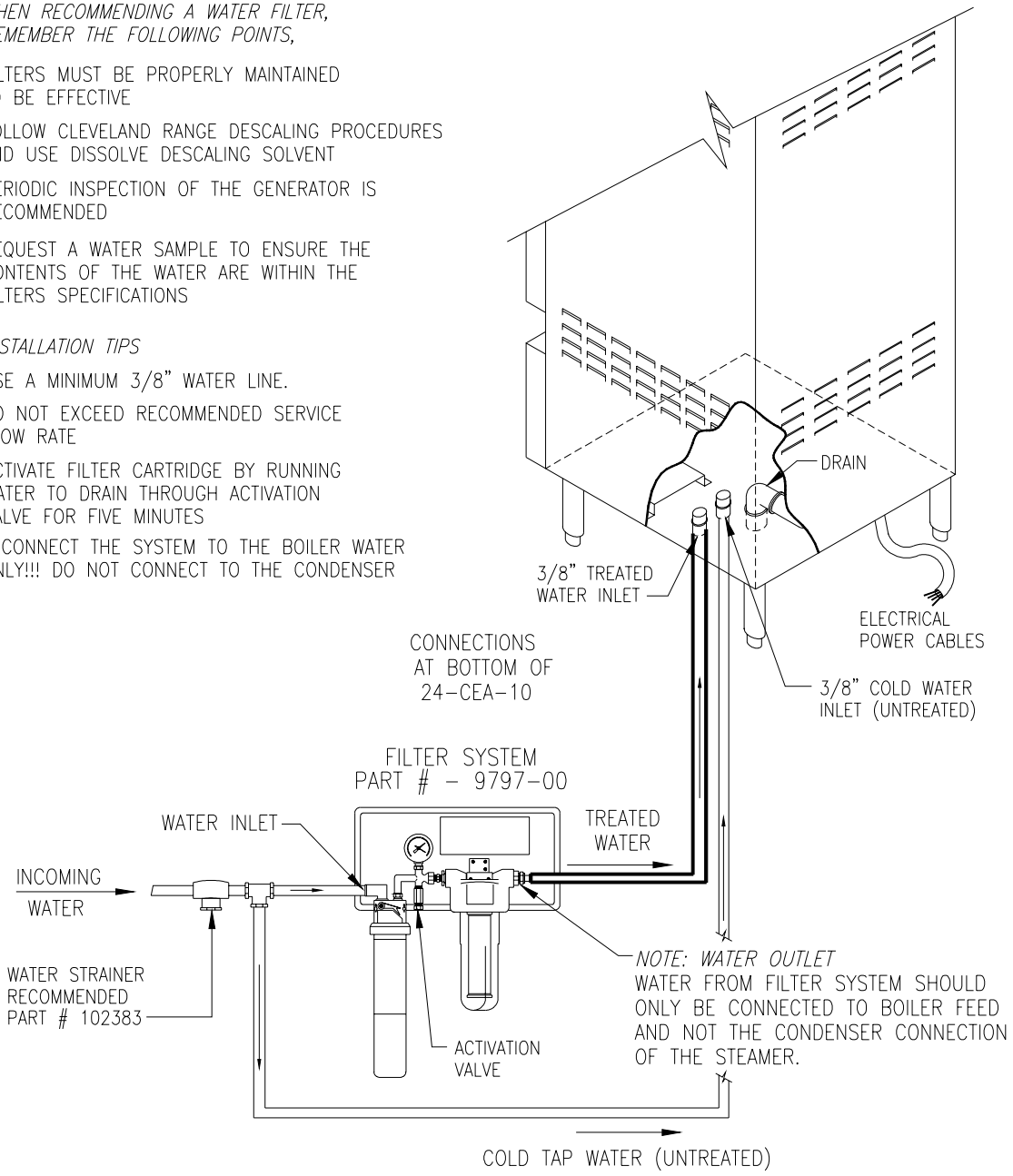
INSTALLATION TIPS

USE A MINIMUM 3/8" WATER LINE.

DO NOT EXCEED RECOMMENDED SERVICE FLOW RATE

ACTIVATE FILTER CARTRIDGE BY RUNNING WATER TO DRAIN THROUGH ACTIVATION VALVE FOR FIVE MINUTES

* CONNECT THE SYSTEM TO THE BOILER WATER ONLY!!! DO NOT CONNECT TO THE CONDENSER



WATER FILTER INSTALLATION DIAGRAM MODEL 24-CGP-10

WHEN RECOMMENDING A WATER FILTER, REMEMBER THE FOLLOWING POINTS,

FILTERS MUST BE PROPERLY MAINTAINED TO BE EFFECTIVE

FOLLOW CLEVELAND RANGE DESCALING PROCEDURES AND USE DISSOLVE DESCALING SOLVENT

PERIODIC INSPECTION OF THE GENERATOR IS RECOMMENDED

REQUEST A WATER SAMPLE TO ENSURE THE CONTENTS OF THE WATER ARE WITHIN THE FILTERS SPECIFICATIONS

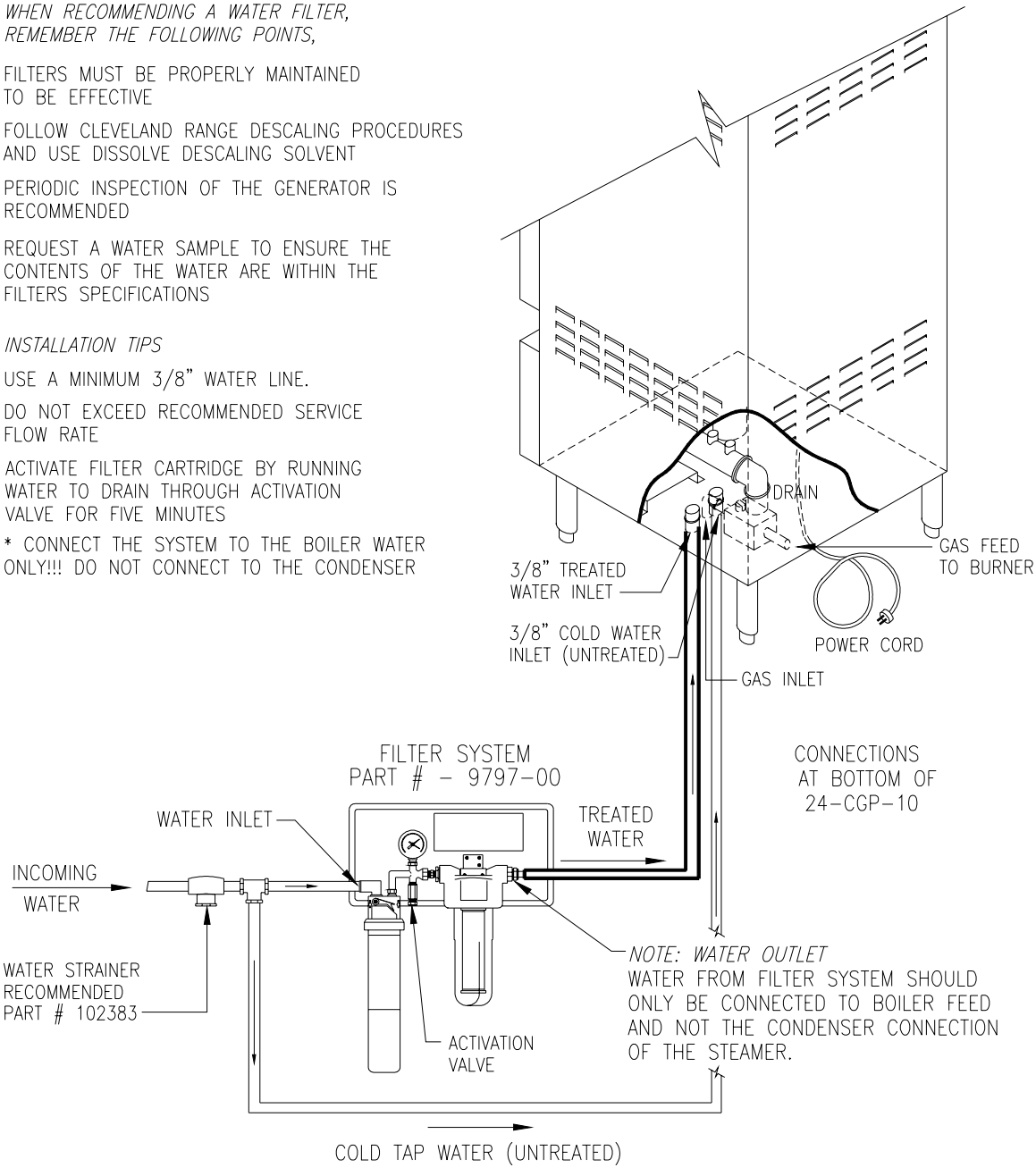
INSTALLATION TIPS

USE A MINIMUM 3/8" WATER LINE.

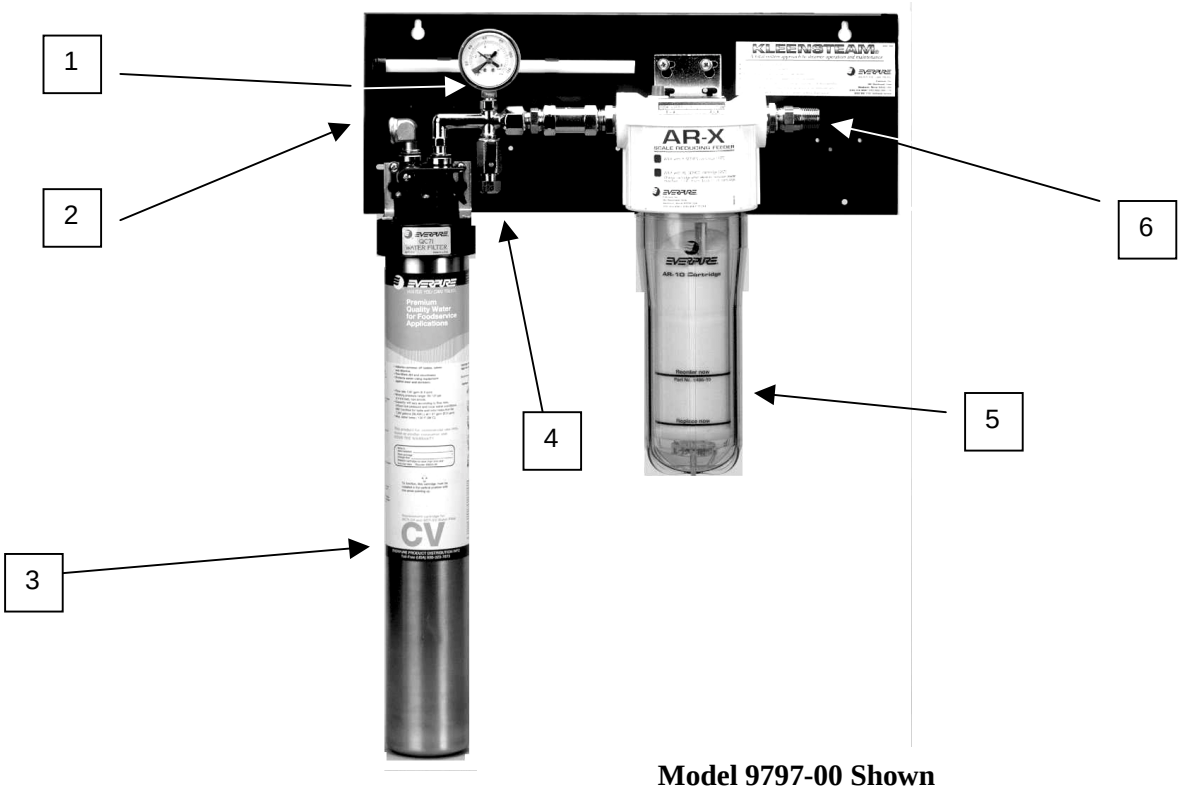
DO NOT EXCEED RECOMMENDED SERVICE FLOW RATE

ACTIVATE FILTER CARTRIDGE BY RUNNING WATER TO DRAIN THROUGH ACTIVATION VALVE FOR FIVE MINUTES

* CONNECT THE SYSTEM TO THE BOILER WATER ONLY!!! DO NOT CONNECT TO THE CONDENSER



PRODUCT INFORMATION -EVERPURE KLEENSTEAM® FILTERS



Model 9797-00 Shown

1. Water Pressure Gauge: If pressure gauge reads in the red section, its time to replace the CV Filter
2. Water Feed Inlet: Main tap water connection
3. CV Filter: Combination carbon and mechanical filtration (1-5 microns)
4. Activation Valve: Purges air and carbon from system when replacing CV filter
5. AR-X Filter: Food grade citric acid lowers pH and absorbs alkalinity. Must be replaced when the white material falls below ¼" in depth.
6. Treated Water Outlet: To boiler feed only. Do not connect this to the condenser line connection

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Water Quality Recommendations:

SCALE FORMING FACTORS:		CORROSION CAUSING FACTORS:	
TOTAL DISSOLVED SOLIDS	Less than 60 ppm	CHLORIDES	Less than 25 ppm
TOTAL ALKALINITY	Less than 20 ppm	FREE CHLORINE	Less than 0.5 ppm
pH FACTOR	greater than 7.5	pH FACTOR	greater than 7.5
SILICA	Less than 13 ppm		neutral to + 1 pH

Important Terms To Remember:

Chlorides: Sodium Chloride (common salt) does not cause scale, but high concentration in water is corrosive to most metals. Water softeners are often used to reduce scale, but are corrosive. Water softeners are often used to reduce water hardness in steam cookers. Softeners that reduce water hardness to zero are excessively corrosive because they inject high levels of chlorides (salt) into the water.

Free Chlorine The amount of residual chlorine left after a municipality has added chlorine to the water supply. There should always be free chlorine in water to indicate proper disinfecting.

Total Chlorine Chlorine and any derivative of chlorine such as chloromines.

Total Hardness: Concentration of dissolved minerals are commonly referred to a the water's hardness factor. Dissolved minerals introduced by the water feed line remain behind after the water is boiled off, coats the heat exchange surfaces, increasing energy costs and reducing equipment productivity.

Total Dissolved Solids The sum of all dissolved minerals in water. If there were no minerals in water, it would be difficult to generate steam. Minerals are necessary to insure rapid steam buildup. Only certain minerals need to be controlled-those that form scale or are corrosive.

Total Alkalinity: Causes scale build-up as its presence encourages calcium carbonate (lime scale) deposits on metallic surfaces.

'pH Factor Used to identify the relative strength of scale forming or corrosive water.

- A pH of 7 is neutral water
- A pH of 7 up to 14 is alkaline or scale forming water.
- A pH of above 7.5 must be adjusted back to 7.5 or Scale will build to rapidly.
- A pH of 7 down to 0 is acidic or corrosive water

Cleveland

When recommending a water filter, Remember the following guidelines.

- Filters must be properly maintained to be effective.
- Follow Cleveland Range descaling procedures and use **DISSOLVE** descaling solvent.
- Periodic inspection of the generator is recommended.
- Request a water sample to ensure the contents of the water are within the filter specifications.
- Ideal conditions for Everpure KLEENSTEAM is an Alkalinity range between 50-200 PPM.
- Based on 3-4 hours of operation per day and an Alkalinity range between 50-200 PPM:
    - The CV filter will average about 6 month of life or when the water gauge points to the red section
    - The AR10 Filter will average about 3-4 months or when the white powder reaches the ¼" mark.

Cleveland

KLEENSTEAM®

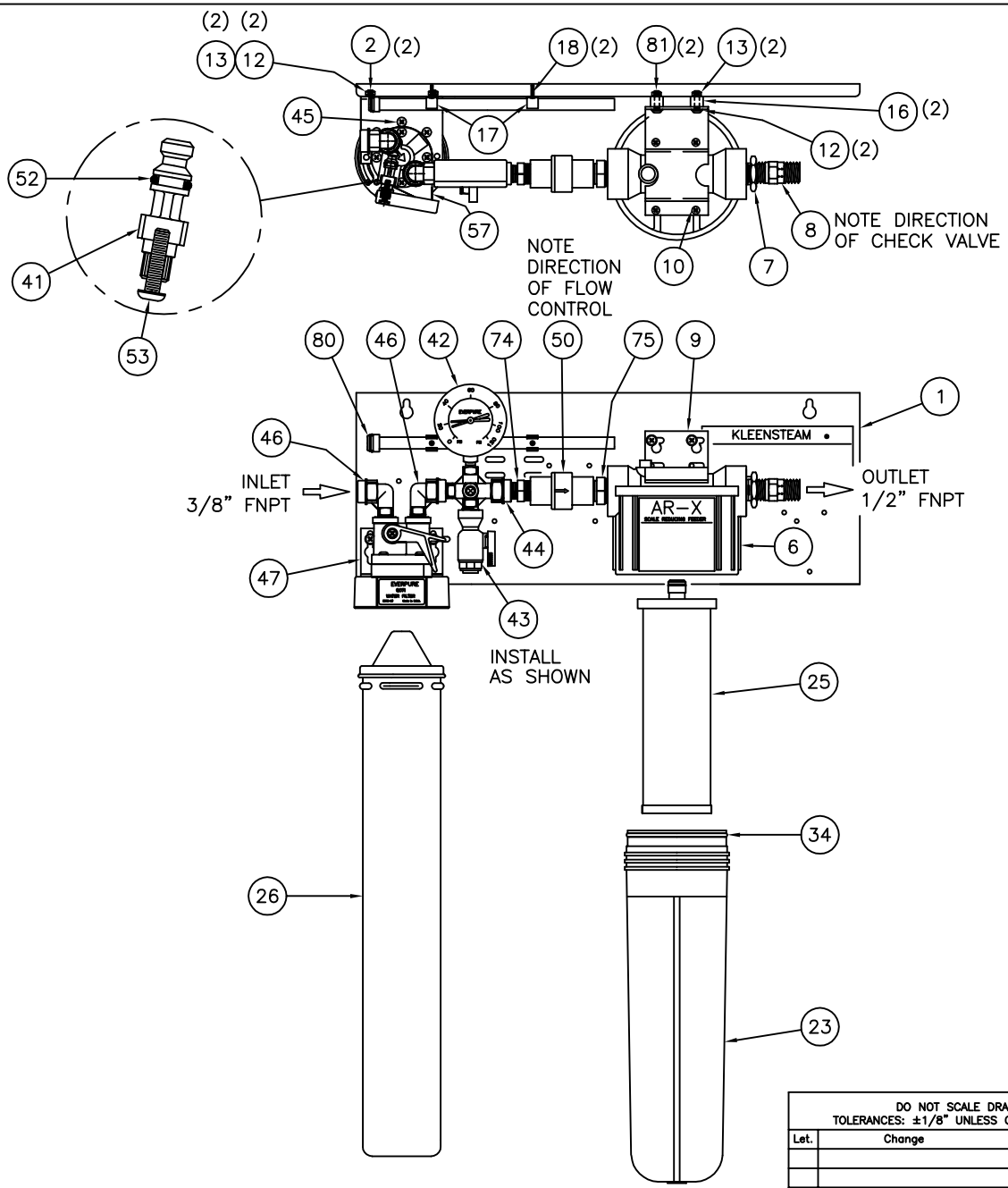
DELIMING INSTRUCTIONS

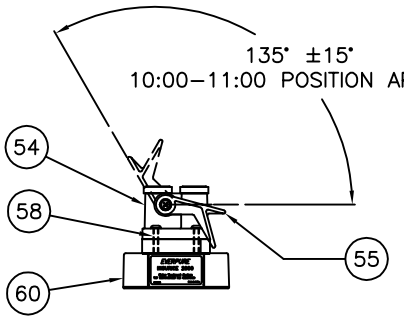
Deliming Tips

- Use only Everpure's ScaleKleen™ deliming material. Other harsh acids will severely damage bowl material and clog system orifices resulting in a service call.
- Use a one kilogram (2.2 lb) package to delime most countertop units.
- Use four-kilogram (2.2 lb) packages to delime most boiler-base units.

STEPS

1. Turn off the power switch on the steamer.
2. Blow down steamer. Blow down is done automatically on some steamers when power is turned off. Manually blow down the steamer if it is not automatic.
3. Turn off inlet water to KleenSteam system by rotating valve handle in a counterclockwise direction as far as possible. 4. Depress the red relief valve located on top of the white AR-X bowl head to Relieve system pressure.
5. Unscrew the clear bowl and remove the AR-1 0 cartridge. Dispose of the exhausted cartridge in normal trash and empty bowl of any remaining water.
6. Remove the dip tube (P/N 3080-40) from it's holding clip, located on the blue backplate. Insert the tube, 0-ring first, into the center port of the head until the dip tube bottoms out.
7. Open one-kilogram (2.2-lb) package of ScaleKleen™ and empty it into the clear bowl. Wipe off any excess ScaleKleen™ material which may be on the bowl threads or 0-ring.
8. Screw the bowl back into the head - hand tight only! NOTE: The dip tube may become packed with ScaleKleenTI1. This is normal and will not affect the deliming procedure.
9. Turn on the inlet water to the KleenSteam unit by rotating the valve handles in a clockwise manner until it stops.
10. Turn' on the power to the steamer. NOTE: This action will quickly introduce the ScaleKleen ™ material directly into the boiler chamber. If you are deliming a countertop steamer, proceed to step 11. If you are deliming a boiler-base unit, monitor ScaleKleen™ level in bowl. When it drops to 1 ", quickly turn off inlet water at valve handle. Now relieve pressure and unscrew bowl from head. Add another kilogram of ScaleKleen™ to the bowl and reintroduce the material into the boiler. Repeat this procedure until four (4) kilograms of ScaleKleen™ have been introduced into the boiler chamber. Proceed to step 11.
11. With ScaleKleen™ material introduced into the boiler chamber and the inlet water turned on, allow the steamer (countertop or boiler-base) to come up to operating temperature and pressure, and hold for one hour.
12. Thirty minutes into the deliming procedure turn on steam to cooking chamber(s) for one minute. This will delime the distribution lines, small orifices, and steam solenoid valves.
13. After one hour of deliming the steamer at operating temperature and pressure, turn the steamer power switch to the off position.
14. Manually blow down the steamer if it is not done automatically when the power is turned off.
15. Fill the boiler with fresh, clean water and repeat blow down a second time to void the boiler chamber of any undissolved loose scale.
16. After the second blow down, turn the steamer power switch to the off position, and turn off the inlet water at the valve handle on the KleenSteam unit.
17. Relieve system pressure by depressing the red relief valve on the white AR-X head until all air is exhausted and water begins to escape.
18. Unscrew the clear bowl and remove the dip tube from the head. BE SURE TO REPLACE THE DIP TUBE IN IT'S HOLDER ON THE BLUE BACKPLATE!
19. Install a new AR-10 cartridge into the head, and screw the bowl back into the head. Hand-tighten only!
20. Turn on the inlet water. Relieve trapped air in the clear bowl by depressing the red relief valve on the white AR-X bowl head until all air is exhausted and water starts escaping.
21. Turn the steamer power switch to the on position. Steamer is now ready to be placed back into service.





RINGS TO BE PUSHED DOWN EVEN ON STACKS. TOP OF STACK TO BE SHOWING.

DO NOT SCALE DRAWING TOLERANCES: ±1/8" UNLESS OTHERWISE NOTED				
Let.	Change	By	App	Date

EVERPURE®
ENGINEERED SYSTEMS
NORTHBROOK, ILLINOIS

NAME	KLEENSTEAM AR-X TECHNICAL DATA SHEET		
DETAILED BY: KMR 7/1/02	APP. BY:	SHEET 1 OF 1	
REF. NO.	PART NO. KLEENSTEAM_AR-X		

EV979700 KLEENSTEAM SYSTEM

BALLOON NBR	PART NBR	QTY.	PRODUCT DESCRIPTION
1	EV309214	1	20" STEEL PLATE PAINTED
2	EV301300	2	SCREW, MACH, #10-32 X 3/8, PLTD PN HD PHIL
6	EV308892	1	HEAD BODY
7	EV309823	1	REDUCER BUSHING
8	EV309666	1	CHECK VALVE (KYNAR)
9	EV306961	1	WALL MOUNTING PLATE, PLATED, DCO-4258
10	EV307752	4	SCREW, TAP, #10-14 X 1/2, PLTD PN HD PHIL PLASTITE
12	EV543000	4	WASHER PL #10 X .037 SST
13	EV302930	4	NUT, #10-32, HEX, PLTD
16	EV306919	2	SPACER
17	EV310018	2	CLIP
18	EV309266	2	SCREW, MACH, #4-40 X 3/8, PLTD PN HD PHIL
23	EV306963	1	10" FILT HOUS W/ O RING
24	EV979801	1	SCALEKLEEN 2.2 LB E/S 4 PK
25	EV308027	1	AR10 CARTRIDGE ASSY
26	EV307985	1	CART SHRINKWRAPPED
34	EV306027	1	O-RING
41	EV300900	1	VALVE STEM CELCON MOLD
42	EV310850	1	GAUGE, PRS. 2", 1/8" LM, 125 PSI SS
43	EV310201	1	VALVE, BALL, 3/8 NPTI X 3/8 PI
44	EV310851	1	OUTLET TEE MOLDED TOP MOUNT GAUGE
45	EV306203	3	SCREW, MACH, #10-32 X 5/16, PLTD PN HD PHIL
46	EV310852	2	ELBOW 3/8"
47	EV304644	1	MOUNTING PLATE, PLATED
50	EV310622	1	FLOW CONTROL 1.6 GPM
52	EV301000	1	O-RING .531 OD X .103 CS
53	EV301200	1	SCREW, TAP, #8-16 X 7/8, PLTD PN HD PHIL PLASTITE
54	EV306107	1	PLSTC HD BODY QC W/RINGS
55	EV303452	1	BLK VALVE HANDLE / PL HEAD
57	EV305973	1	SPACER - W/O LUGS
58	EV306531	4	SCREW, MACH, #10-32 X 1-1/8, 18-8SS RD HD PHIL
60	EV307850	1	SUPPORT RING
74	EV306916	1	HEX NIPPLE REDUCER PLTD
75	EV309065	1	NIPPLE REDUCER PLTD
80	EV310877	1	DIP TUBE ASSEMBLY
81	00960049	2	SCREW, MACH, #10-32 X 3/4, 302SS PAN HD SLT