



## ***Service Bulletin #EQUIP0411CWT-06***

TO: All Cleveland Range Maintenance & Repair Centers  
FROM: Cleveland Range Service Department  
DATE: 6-21-2011  
SUBJECT: Water Treatment System Change.

For over 18 years Cleveland Range has offered a carbon block filter system for the steamers. Carbon block filters will remove 5 micron particles and chlorine from the water supply. This alone will increase the life of the steamer but does nothing for the accumulation of scale.

The addition of the scale stick helped prevent the scale from adhering to the steam generator. With regular maintenance this also extended the life of the steamer. The scale stick however had a negative result in the new spritzers style combi--the polyphosphate coated the cabinet and bonded with the oils from the food.

After testing several types of water treatment systems the Claris ion exchange system accomplished mineral reduction without harming the equipment. Installation is simple as well as cartridge replacement. In areas tested, the minerals in the water were reduced enough to extend the time between maintenance descalings significantly. It is important to note that maintenance is still needed.

Beginning March 1<sup>st</sup>, 2011 the Claris water treatment system, model number CWT-06, will be available through Cleveland Range This will replace the previous filter systems for the floor model steamers and Combi's. \*Claris Steam System w/ Pre-filter & Meter Kit consists of:

- Claris 0 Bypass head
- Claris XL Cartridge
- Claris Hose 10CM, 3/8x1/2 (2 pieces)
- Claris Test Kit
- Prefilter
- Flow Meter.

Attached is a cut sheet for the product. Please note that the quality of the water is very important to the life of the Claris XL cartridge and once the Claris test kit is used the flowmeter must be set to determine when the cartridge is to be changed. The chart included is used to determine the setting of the flow meter.

Any questions or concerns please contact Cleveland Range Technical Service at 800-338-2204.



**Claris Water Treatment System**  
for Convotherm by Cleveland Combi Ovens

**System Components, Includes:**

- one (1) Pre-filter
- one (1) Claris X-Large Steam System
- one (1) Claris Flow Meter
- one (1) Water Test Kit

**Accessories:**

- Claris X-Large Filter Cartridge (CWT-XLC)
- EC-110 Cartridge - Prefilter Replacement Cartridge (EC-110)

**Cleveland Standard Features:**

**E-10 Prefilter System**

- Filters out larger dirt and rust particles.
- Extends the life of primary filter cartridges.
- Tightly spun EC-110 sediment cartridge delivers 10 micron nominal filtration.
- Durable slim bowl design makes cartridge replacement easy.
- Clear housing allowing visual inspection of trapped particles to determine when to change the cartridge.
- 10" bowl design accepts most 10" drop in cartridges.

**Claris Single Head with Zero Bypass**

- Commercial quality filter head designed exclusively for Claris filter cartridges.
- Engineered for durability, strength and longevity.
- Corrosion resistant hardware.
- The system can be operated horizontally or vertically, depending on the available space.

**Water Test Kit**

- Used to determine the scale causing hardness (mainly calcium and magnesium).
- Indicates water test completion when the color changes from blue-green to orange-yellow.

**MODEL:**  CWT-06 (includes complete system)



**Short Form Specifications**

Shall be Cleveland Model CWT-06 Claris Water Treatment System including one (1) Pre-filter, one (1) Claris X-Large Steam System, one (1) Claris Flow Meter & one (1) Water Test Kit.

**Claris X-Large Filter Cartridge:**

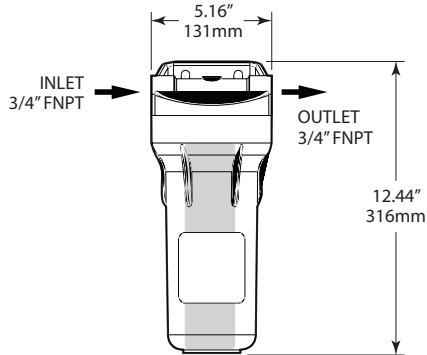
- 5-stage filtration process.
- Operation in vertical or horizontal position.
- NSF Certified under NSF/ANSI Standard 42.

**Claris Flow Sensor and Display**

- Monitors water usage rate to determine cartridge replacement.
- Display indicates cartridge replacement based on gallons of water treated.
- Display unit provides information about residual capacity of installed cartridge, total filtrate volume since flow sensor was installed, filtrate volume and operation time of last five (5) installed cartridges.

# Technical Data:

## Claris Water Treatment Components



### Pre-Filter

<b>Overall Dimensions:</b>	12.44" H x 5.16" W (316mm H x 131mm W)
<b>Inlet Connection:</b>	3/4" FNPT
<b>Outlet Connection:</b>	3/4" FNPT
<b>Service Flow Rate:</b>	Maximum 6.0 gpm (22.7 Lpm)
<b>Pressure Requirement:</b>	35 psi - 70 psi (2.4 – 4.8 bar) non-shock
<b>Water Temperature Inlet Requirement:</b>	39° - 86°F (4° - 30°C)
<b>Electrical:</b>	No electrical connection required
<b>Shipping Weight:</b>	4 lbs.
<b>Operating Weight:</b>	6 lbs.

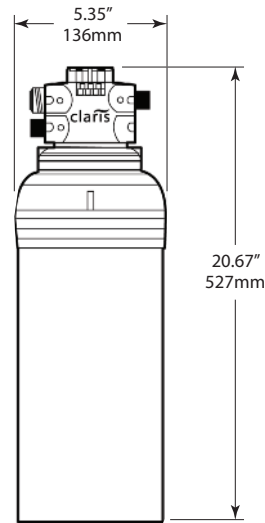


### Flow Meter Sensor

<b>Overall Dimensions:</b>	3.25 W x 2" H x 2" D (83mm W x 51mm H x 51mm D)
<b>Connection:</b>	Inlet: 3/8-inch BSP F nut Outlet: 3/8-inch BSP M
<b>Service Flow Rate:</b>	0.44-3.08 gpm (100-700 LPH)
<b>Pressure Loss:</b>	184 gph (up to 700 LPH flow rate) 3 PSI (0,2 bar)
<b>Pressure Requirement:</b>	35 psi - 70 psi (2.4 – 4.8 bar) non-shock
<b>Ambient Temperature (min/max):</b>	39 - 104 °F (+4 - +40 °C)
<b>Installation Position:</b>	Horizontal recommended

### NOTES:

Cleveland Range reserves right of design improvement or modification, as warranted. Many regional, state and local codes exist and it is the responsibility of the owner and installer to comply with the codes. Cleveland Range equipment is built to comply with applicable standards for manufacturers.



### Claris X-Large Filter Cartridge

<b>Overall Dimensions:</b>	20.67" H x 5.35" Dia. (525 mm x 136 mm)
<b>Service Flow Rate:</b>	1.0 gpm (3.7 Lpm)
<b>Treatment Capacity*:</b>	1,100 gal.
<b>Pressure Requirement:</b>	35 psi - 70 psi (2.4 – 4.8 bar) non-shock
<b>Water Temperature Inlet Requirement:</b>	39° - 86°F (4° - 30°C)
<b>Electrical:</b>	No electrical connection required

\*Capacity is based on water hardness of 180 ppm.



### Programmer & Display

<b>Overall Dimensions:</b>	2.75" H x 2" W (70mm H x 51mm W)
<b>Cable:</b>	59" (1.5 meters)
<b>Electrical:</b>	Lithium Coin Battery (type CR2032)

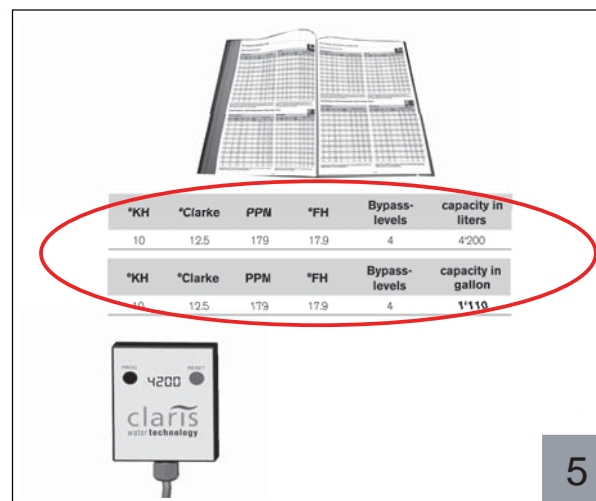
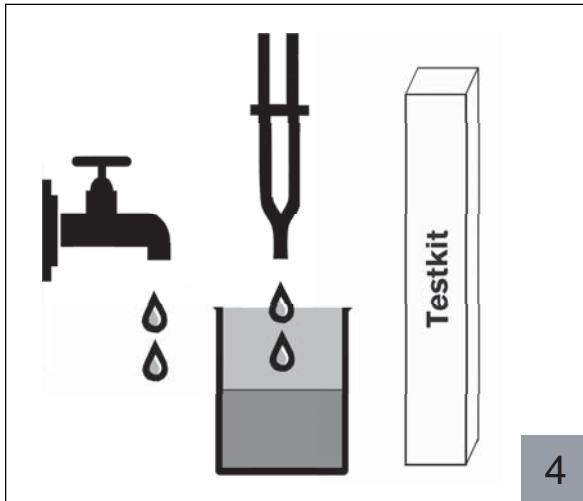
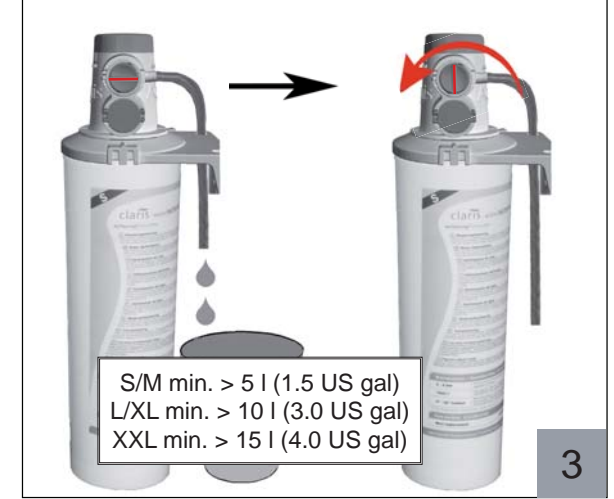
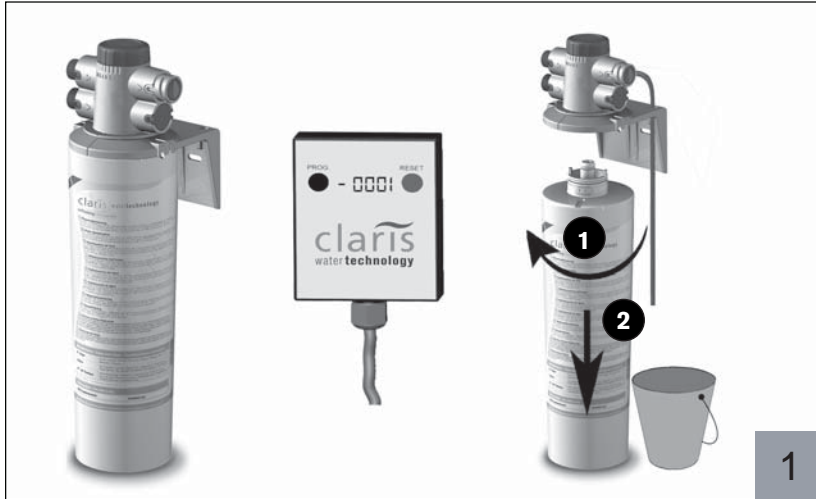
### WATER QUALITY REQUIREMENTS FOR CLEVELAND STEAMERS

TDS	< 60 ppm	pH Factor	7.0 – 8.5
Total Alkalinity	< 20 ppm	Free Chlorine	< 0.1 ppm
Silica	< 13 ppm	Conductivity	min. 20 µS/cm (50 kOhms)
Chloride	< 25 ppm		

**NOTES:** Proper maintenance of the steam cooking equipment and water treatment system is the responsibility of the owner/operator. Improper installation or maintenance may void the warranty. Refer to the Operators Manual for proper instructions. A water quality analysis is required prior to installing the Claris water treatment system, since water conditions vary throughout the country.

Do not use the "Claris System" with water that is microbiologically unsafe or of unknown quality, without adequate disinfection before or after the system.

## Short installation guide





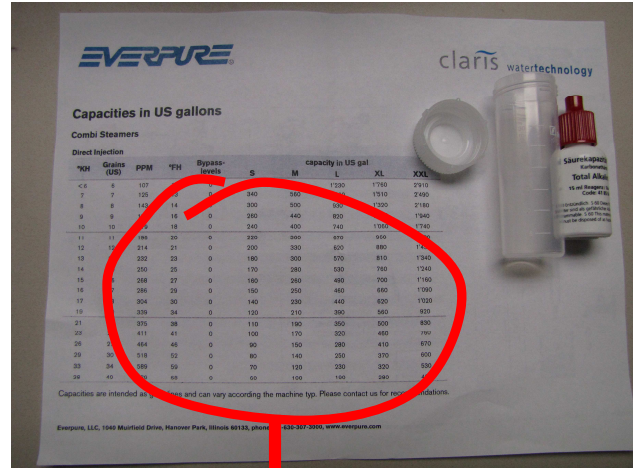
## Capacities in US gallons

°KH	Grains (US)	PPM	°FH	Bypass-levels	capacity in US gal				
					S	M	L	XL	XXL
< 6	6	107	11	0	400	660	1'230	1'760	2'910
7	7	125	13	0	340	560	1'060	1'510	2'490
8	8	143	14	0	300	500	930	1'320	2'180
9	9	161	16	0	260	440	820	1'170	1'940
10	10	179	18	0	240	400	740	1'060	1'740
11	11	196	20	0	220	360	670	960	1'580
12	12	214	21	0	200	330	620	880	1'450
13	14	232	23	0	180	300	570	810	1'340
14	15	250	25	0	170	280	530	760	1'240
15	16	268	27	0	160	260	490	700	1'160
16	17	286	29	0	150	250	460	660	1'090
17	18	304	30	0	140	230	440	620	1'020
19	20	339	34	0	120	210	390	560	920
21	22	375	38	0	110	190	350	500	830
23	24	411	41	0	100	170	320	460	760
26	27	464	46	0	90	150	280	410	670
29	30	518	52	0	80	140	250	370	600
33	34	589	59	0	70	120	230	320	530
38	40	679	68	0	60	100	190	280	460

Capacities are intended as guidelines and can vary according the machine typ. Please contact us for recommendations.

## Test water to determine filter capacity

- Thoroughly rinse the vial with the same water to be tested
- Take 5 ml sample water
- Holding the reagent bottle vertically, add drops to the sample water and shake to mix even
- Start counting the drops when the water turns blue, record the number of reagent drops when sample water turns to orange-yellow
- With the number of drops recorded, look up on chart and locate the number of water gallon under XL column (or the column corresponding to filter size), record the number as result



Direct Injection					capacity in US gal			
*KH	Grains (US)	PPM	°FH	Bypass-levels	S	M	L	XL
<6	6	107	11	0	400	660	1'230	1'780
7	7	125	13	0	340	560	1'060	1'510
8	8	143	14	0	300	500	930	1'320
9	9	161	16	0	260	440	820	1'170
10	10	179	18	0	240	400	740	1'060
11	11	196	20	0	220	360	670	960
12	12	214	21	0	200	330	620	880
13	14	232	23	0	180	300	570	810
14	15	250	25	0	170	280	530	760
15	16	268	27	0	160	260	490	700
16	17	286	29	0	150	250	460	660
17	18	304	30	0	140	230	440	620
18	20	320	34	0	120	210	390	560















Example: for 10 reagent drops, the filter capacity is 1060 US Gal.





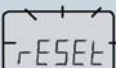

## Programming the Flow Meter

### Setting the filter capacity in gallon

Please follow the capacity instruction for the appropriate CLARIS filter cartridge (see CLARIS filter Guide).


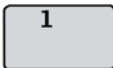




Step	Button		Display
1.		Press the „PROG“ button once - „PROG“ flashes	
2.		Press the „RESET“ button once – active digit flashes	
3.		By pressing the „RESET“ button, set the desired value - For the digit „2“, press „RESET“ two times	
4.		Press the „PROG“ button once to confirm the desired digit and switch to the next digit. - Active digit flashes	
5.		By pressing the „RESET“ button, set the desired value - For the digit „6“, press „RESET“ six times	
6.		Repeat Steps 4 and 5 until all digits have been set	
7.		Press the „PROG“ button once - Final filter capacity is set - the programmed value appears	

### Resetting the filter capacity (after replacement of filter cartridge)

Step	Button		Display
1.		- Display flashes Programmed filter capacity exhausted or maximum operation time of 12 months exceeded	
2.		Press and hold the „RESET“ button for approx. 3 sec. - „RESET“ appears on the display	
3.		The filter capacity is reset and the last programmed value appears	

### Memory Access

There is a possibility to individually retrieve the operating data (volume in gallon) and operation time in month of the last five filter cartridges installed.

Step	Button		Display
1.		Press and hold the „PROG“ button for approx. 5 sec. - The digit „1“ appears	
2.		The display indicates the volume in gallons and the operation time in months of the last cartridge in place	
3.		Press the „RESET“ button once - The operating data of the next to last filter cartridge are displayed	
4.		Repeat Step 3 to access to the memories of the prior installed filter cartridges	
5.		Press the „PROG“ button once - The current filter capacity is displayed	

113583 ¾ X ½ Bushing

113558 Hose

113556  
Claris  
Head

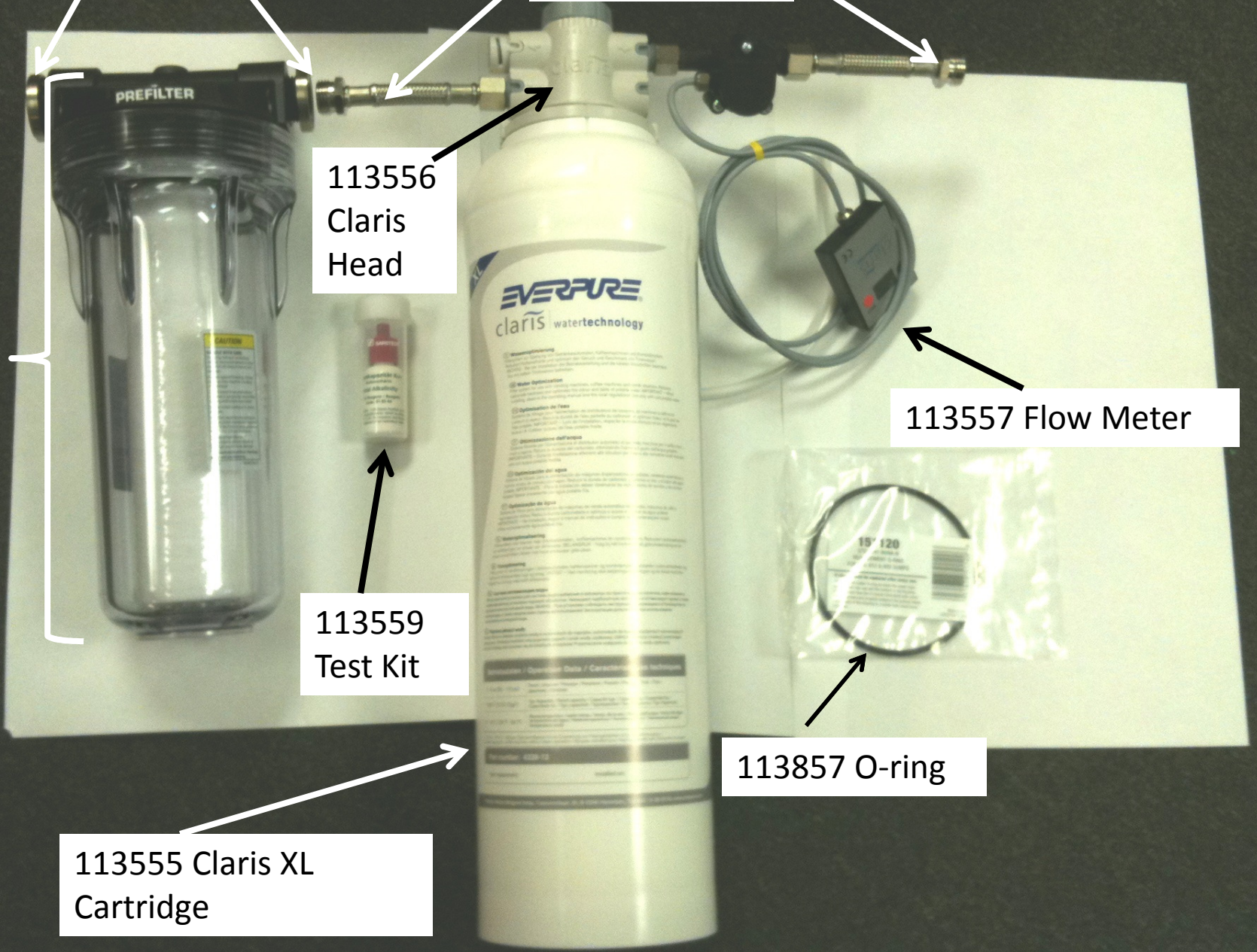
113560  
10"  
Prefilter

113557 Flow Meter

113559  
Test Kit

113857 O-ring

113555 Claris XL  
Cartridge





113562  
Prefilter  
Cartridge



113587 O-Ring



113583 3/4 X 1/2  
Bushing



113589 Prefilter head



113588 10"  
Clear Bowl



113586 Wrench