ES-660-RFC
Central Drinking Water Chiller/Purifier

TYPICAL CHILLER/PURIFIER

WATER TREATMENT FEATURES

PURITY MONITOR: Monitors temperature, clarity and purity of water.

PRE-FILTER: Removes suspended particulates to 5 micron, clarifies water for improved Purifier/Sterilizer performance and operational life. Element easy to change without tools.

TASTE MASTER® 5.0 MICRON PURIFIER: Element meets NSF/ANSI Standard 42 for removal of: sediment particles down to 5.0 microns, organic taste and odor plus chorine taste and odor. Carbon block element is easy to change without tools.

STERI FLO® UV STERILIZER: Kills harmful microorganisms such as *Giardia, Cryptosporidium*, bacteria, algae, spores and viruses.

PHOSPHATE FEEDER: Prevents leaching of lead, inhibits rust and protects plumbing.

SUSTAINABLE "GREEN" FEATURES

ENERGY SAVINGS: Chillers feature large reservoirs and small refrigeration units which build up a reserve of chilled water during low usage periods to handle peak demands (lunch hours, coffee breaks, etc.) and meet the low average draw.

SECURITY: Closed-loop system thwarts tampering. Locate central chiller in locked mechanical room.

HFO REFRIGERANT: Eliminates use of ozone-depleting and high GWP (Global Warming Potential) refrigerant as per Montreal Protocol.

TASTE MASTER® ELEMENT: The natural material in the carbon block element will biodegrade over time.

Filtrine's **ES-660-RFC** provides maximum control of drinking water for security and cost effectiveness. Three modules filter, cool/sterilize and circulate water to all connected outlets throughout a facility. These modules provide complete protection of potable water against rust, sediment, tastes and odors, industrial pollutants, organic contaminants and waterborne microorganisms. For lead removal, specify the optional 0.5 micron purifier.* Additionally, when the central chiller is situated in a locked and secure mechanical room, the closed loop configuration eliminates the threat of intentional contamination.

The optimum piping layout consists of: **A)** Supply header in central core wet column from chiller to all floors **B)** Horizontal feeder loops running in plenum on each floor **C)** Return header in same central core wet column. By providing the convenience of pure water in every plenum, you have insured unlimited flexibility for future interior layout revisions and an automated system brings the pure chilled water to wherever it is needed at all filling stations, ice makers, coffee urns etc. in any quantity required from a sip to a full carafe.

SIZING

PERSONS SERVED 13,000

Assumes 1 qt (0.9L)/day per person in a typical office building. For buildings with heavy usage such as hospitals, schools and public buildings, reduce the number of persons served by 1/2 to allow for two qts.(1.9L) per day per person. Capacities based on 80°F (27°C) inlet, 50°F (10°C) outlet.

PIPING ALLOWANCE .....2,400 ft. of 1-1/4"

Each chiller includes extra capacity to handle heat loss to insulated piping in the circulating loop up to the length shown. For piping in excess of this allowance, reduce population served by 100 people for every 100 ft. of additional piping.

LOCATION AND TYPE OF OUTLETS SERVED

OFFICES: Filtrine water line serves fountains and filling stations for carafes and bottles in office areas plus ice makers, coffee and water dispensers in dining area. *No more expensive and space-consuming bottled water!*

HOSPITALS: Chilled water is served in each patients' room automatically, eliminating hand delivery by the nursing staff.

FOOD SERVICE AREAS: Chilled water is available for food preparation, ingredient mixing, carbonators, ice machines or glass/pitcher fillers.

FACTORIES: Drinking fountains served by Filtrine's system can be conveniently located close to workstation groups to minimize walking time. Saves floor space and eliminates the on-going expense of bottled water.

SCHOOLS: Filtrine's ES-660-RFC serves purified water in cafeterias, corridors or classrooms. Specify Filtrine's "Vandal-Proof" fountains to insure long, maintenance-free service.

*OPTIONAL

TASTE MASTER® 0.5 MICRON PURIFIER: Element meets NSF/ANSI Standards 42 and 53 for removal of: lead; sediment particles down to 0.5 microns; organic taste and odor; chlorine taste and odor; and pathogens including *Cryptosporidium, Entamoeba Giardia* and *Toxoplasma*. Carbon block element is easy to change without tools.

PURIFIER MAINTENANCE

Replace element every 4 months or more often if required.

Filtrine Mfg. Co. • 15 Kit St. Keene, NH 03431 USA
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www.filtrine.com • drinkingwater@filtrine.com

MADE IN USA

FILTRINE IS ISO 9001:2015 CERTIFIED
PRODUCT LINE APPROVED MARK AVAILABLE

COMPLIES WITH LEAD NSF/ANSI 372

900-15
(ES-660-RFC)
REV. 03.30.21

CHILLER/PURIFIER SPECIFICATION

Install (where shown on plans) Filtrine's water system consisting of a factory packaged CHILLER/PURIFIER, dedicated drinking water line and selected fixtures as described elsewhere in this specification. For maximum security and to serve 50°F (10°C) water at all outlets, CHILLER/PURIFIER and fixtures shall be furnished as a system covered by a maintenance contract, renewable for the life of the building. CHILLER/PURIFIER to be Model ES-660-RFC as manufactured by Filtrine Mfg. Co., Keene, NH 03431 USA and shall carry a first year maintenance contract covering parts and labor.

CHILLER/PURIFIER EQUIPMENT SCHEDULE

MFR and MODEL NUMBER	QTY	PERSONS SERVED	MODULES								WARRANTY*	SERVICE CONTRACT*
			FILTRATION			COOLING and STERILIZATION				CIRC		
			PRE-FILTER	PURIFIER	CORROSION INHIBITER	COMP	TANK	STERIL	VOLTAGE	PUMP		
FILTRINE MFG CO ES-660-RFC	1	13000	5 MICRON SPUN POLY	5 MICRON CARBON BLOCK**	PHOSPHATE FEEDER (OPTIONAL)	15 HP HERMETIC	660 GAL	UV	208-230/60/3 or 460/60/3	1-1/2 HP STAINLESS STEEL	12 MONTHS	ONE YEAR

*NOTE: 2-5 year extended service contract, 5 year Compressor Warranty and Lifetime Warranty available upon request.
**Optional 0.5 micron carbon block for lead removal and more.

SPECIFICATIONS: ES-660-RFC

COOLING CAPACITY .....Btu/Hr 130,000
Watts 30,100
Rating Conditions
Water Discharge Temperature .....50°F
Ambient Temperature .....90°F
COMPRESSOR HP 15
Lifetime lubricated hermetic type with condenser, capillary tube and dehydrator.
COOLING TANK & EVAPORATOR.....660 gal (2,508 ltr)
Tank welded #304 stainless steel with immersion coil evaporator, tested at 200# for 125# working pressure.
PUMP MOTOR HP 1-1/2
Capacity.....30 gpm (114 lpm) @ 30 psi
Stainless steel centrifugal pump on rubber pads with unions, service and bypass valves.
THERMOSTAT
Adjustable range.....40°F to 90°F (4°C to 32°C)
INSULATION
Tank and water lines .....Closed cell thermo-elastomer
CABINET: 18 gauge enameled aluminum or stainless steel (optional) panels on 10 gauge frame. (Panels removable without tools.)

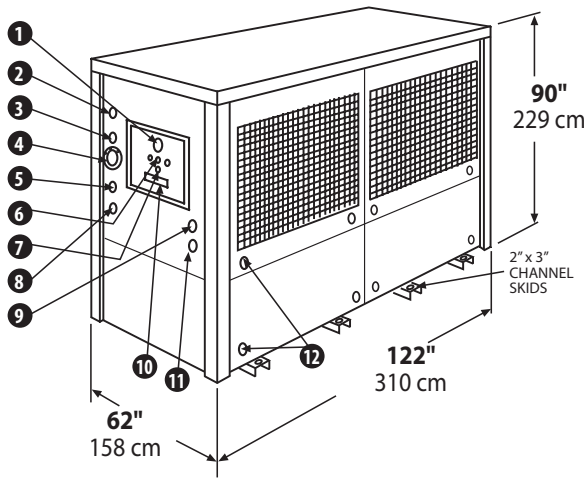
IN-LOOP UV STERILIZER..... S5
IN-LINE TASTE MASTER PURIFIER..... IL20-PFTM
CORROSION INHIBITOR .....Phosphate Feeder
PURITY MONITOR: Dial thermometer, filter change light and UV intensity meter monitor temperature, clarity and purity of water.
SUPPLY POWER ..... 208-230/60/3 or 460/60/3
FLA AMPS MAXIMUM.....58 or 29
PLUMBING CONN. IN & OUT .....1-1/4" (31 mm) FPT
SHIPPING WEIGHT ..... 6,000 lb (2,700 kg)

CONDENSER OPTIONS (designated by suffix)
A Fan cooled condenser inside chiller housing
W Water cooled condenser; hookup to city or tower water

OPTIONAL OPERATING CONDITIONS:
OUTDOOR AMBIENT
Up to 110°F (43°C)
Up to 120°F (49°C)

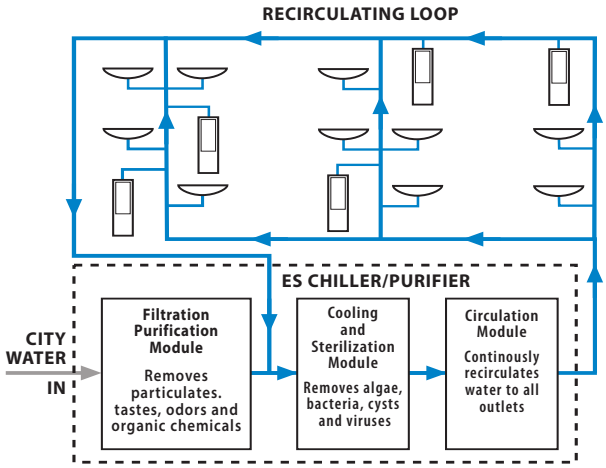
NOTE:
Dimensions and shipping weight may vary with options. Consult factory for further information.

TYPICAL UNIT SCHEMATIC



1 Thermostat
2 Air Vent
3 Chilled Water Discharge
4 Dial Thermometer
5 Water Return
6 Filter Change Light
7 On/Off Switch
8 City Water Make Up
9 Electrical Connection
10 UV Intensity Meter
11 Remote Connection
12 Finger Holes for Lift-out Panels

Flow of water through modules of typical Filtrine ES installation



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