EBD Water®

The Water Treatment Experts...™

Manufactured by **EBD Lebanon** under license Beirut - Lebanon Tel.961-1-245454

SERIES 2100
FLOOR CABINET GAS FEEDERS

DESCRIPTION

The **EBD Water** Series 2100 is a multi-functional floor cabinet mounted gas feeder applicable for manual or automatic control of gaseous chlorine, sulfur dioxide, ammonia or carbon dioxide, for water/wastewater treatment and other industrial applications.

The Series 2100 offers a wide range of models and options with capacities up to 5000 PPD or 100 kg/hr. Control modes include automatic flow proportioning, residual control and compound loop.

The Series 2100 fiberglass floor cabinet has been designed for ease of operation, observation and routine service. The front cover is designed to allow for easy and quick access to system components.

The Series 2100 is an all vacuum system consisting of a remote vacuum regulator(s), floor mounted fiberglass cabinet, a manual or automatic gas flow control system and a remote ejector/check valve assembly.

FEATURES

Flexibility

EBD Water Series 2100 Floor Cabinets are multi-functional enclosures designed to conveniently house a combination of gas feed equipment and a wide range of water quality or other instrumentation, a capability that provides customers with enormous flexibility.

Space-Saving

Series 2100 Floor Cabinets are compact in design for ease of installation in new or existing facilities.

Convenience

For total convenience, all equipment is adjustable from the front of the cabinet. Internal components are easily accessed by simply removing the front cover.

Minimal Maintenance

Maintenance is minimized due to the rugged, reinforced fiberglass construction.

Safety

Like all **EBD Water** equipment, the Series 2100 Gas Feeders stress safety. Every gas feeder is an all-vacuum system consisting of a remote vacuum regulator, floor mounted cabinet housing manual or automatic gas flow controls, and a remote ejector/check valve assembly.

DESIGN

Basic Feed System

The **EBD Water** Series 2100 Floor Cabinet Mounted Gas Feeders are operated by vacuum that is produced when water flows through the ejector venturi. The vacuum from the ejector passes through the vacuum interconnecting line to the regulator which causes the inlet valve to open and allow gas to enter into the system.

The gas is then regulated to a constant vacuum and passes through the regulator to the cabinet mounted flowmeter and flow rate adjusting valve. A gas pressure relief valve, incorporated within the vacuum regulator, automatically vents gas to the atmosphere, should pressure build up in the system. Gas is conveyed from the cabinet back to the ejector/check valve where a chemical solution is formed and discharged to the point of application.

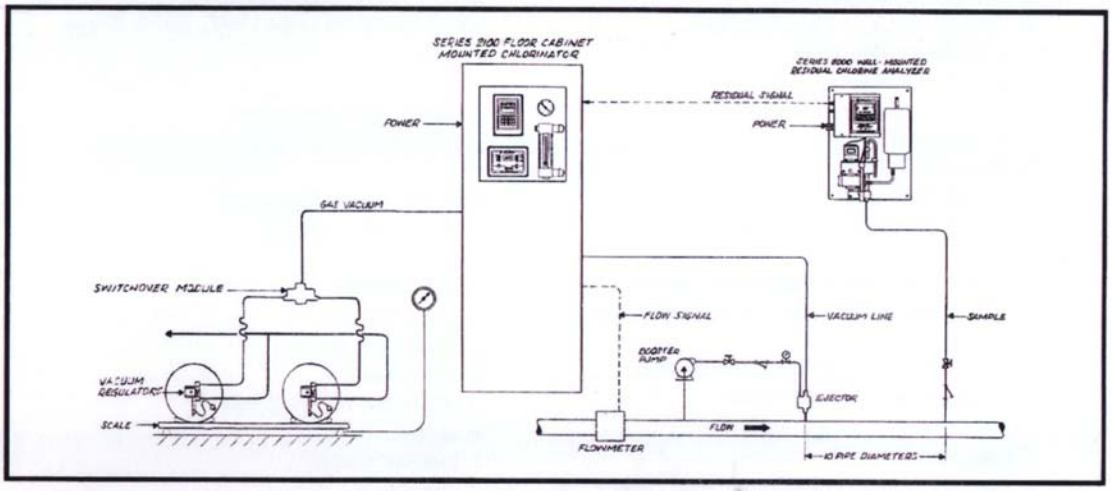
Automatic Switchover

The Series 2100 Manual and Automatic Gas Feed Systems are available with automatic switchover. When switchover is required, two remote vacuum regulators with indicating meters, a switchover module and ejector is provided. Vacuum switchover permits gas to flow under vacuum from the regulator to the ejector until the initial gas source is depleted, at which time, the switchover module switches to the standby gas supply source.

Automatic Control

When automatic control is required, a microprocessor controller is added to the floor cabinet in order to automatically control gas feed in direct proportion to flow, residual or both. The automatic control system includes the basic vacuum regulator, controller, automatic valve, meter/rate valve, differential pressure regulator and ejector. All components are pre-wired, pre-piped, tested and calibrated prior to shipment. Installation requires power, signal and gas connections.

TYPICAL INSTALLATION



GENERAL SPECIFICATIONS

MODEL: **21**

METHOD OF CONTROL CODE

0. Manual
1. Flow Proportioning
2. Residual
3. Compound Loop
4. Other

MAX CAPACITY CODE

1. 100 PPD
2. 200 PPD
3. 500 PPD
4. 2000 PPD

GAS CODE

C. Chlorine
S. Sulfur Dioxide
A. Ammonia

FEED CAPACITIES AVAILABLE

SERIES 2100 MODEL	MAXIMUM CAPACITY PPD	FLOW METER CAPACITIES PPD CHLORINE	MAXIMUM BACK PRESSURE
21 x 1	100 PPD (2 kg/hr)	100 (2 kg/hr) 50 (1 kg/hr) 25 (.5 kg/hr) 10 PPD	140
21 x 2	200 PPD (4 kg/hr)	200 (4 kg/hr) 100 (2 kg/hr) 50 (1 kg/hr) 25 (.5 kg/hr)	140
21 x 3	500 PPD (10 kg/hr)	500 (10 kg/hr) 200 (4 kg/hr) 100 (2 kg/hr) 50 (1 kg/hr)	140
21 x 4	2000 PPD (40 kg/hr)	2000 (40 kg/hr) 1000 (20 kg/hr) 500 (10 kg/hr) 200 (4 kg/hr)	50

1. The X in Model Number identifies the Control Mode.
2. Control Mode 2 & 3 are not available for ammonia gas service.
3. Sulfur Dioxide is 0.95 capacity of chlorine.
   Ammonia is 0.50 capacity of chlorine.
   Carbon Dioxide is 0.78 capacity of Chlorine Flowmeter.

Standard Equipment

a. Remote Vacuum Regulator for:
   1. Cylinder mounting
   2. Ton container mounting
   3. Wall mounting on manifold/manifold valve
   4. As a wall panel
b. Floor Cabinet with:
   1. Gas flowmeter
   2. Differential pressure regulator
   3. Manual valve (manual control) or automatic valve (automatic control)
   4. Manual bypass valve (automatic control only)
   5. Controller (automatic control only)
c. Remote Ejector, fixed throat

Options

a. Vacuum operated automatic switchover
b. Multiple point feeding
c. Ejector
   1. Diaphragmless - 500 PPD (10 kg/h) maximum
   2. Anti-siphon - 500 PPD (10 kg/h) maximum

MODEL NUMBERS
2103C-X AND 2104C-X

Electrical Requirements

120 VAC, 60 Hz or 240 VAC, 50 Hz Single Phase

Power Consumption

Approximately 50 watts

Signal Input (Typical)

4-20 mA DC, 1-5 VDC

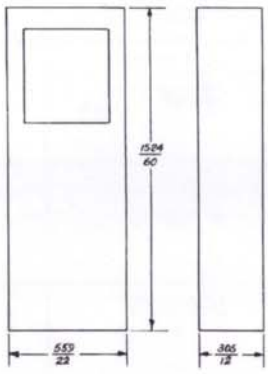
Accessories

a. gas detectors
b. residual analyzers
c. recorders
d. chemical metering pumps
e. scales
f. booster pumps
g. manifolds
h. corporation stops
i. water inlet assembly
j. gas masks
k. wall cabinets

Shipping Weight

200# manual systems
240# automatic systems

DIMENSIONS



Note: Cover, Instruments and Other Accessories are Optional and Do not include in the standard units

EBD

EBD Water

CHLORINATORS

Series 4000

- ECONOMICAL CHLORINATION
- ALL VACUUM OPERATION
- CYLINDER OR MANIFOLD MOUNTING FEATURING ONE SIMPLE CONNECTION
- FINEST MATERIALS OF CONSTRUCTION
- WORLDWIDE REPRESENTATIVES AND FACTORY TRAINED SERVICE
- STANDARD RANGE OF FEED RATES UP TO 500 PPD (10 KG/HR)*

APPLICATIONS

MUNICIPAL WATER AND WASTEWATER TREATMENT

For disinfection of potable water in small, municipal, private, or domestic systems; as well as hotels, resorts, housing projects and farm irrigation systems. An excellent chlorinator for small or private wastewater treatment systems and lift stations in large plants.

INDUSTRIAL WATER AND WASTEWATER TREATMENT

For small industrial water and wastewater treatment including: treatment of metal-finishing wastes, cooling water disinfection, chlorination of boiler make-up water, and process and discharge water of paper, food canning, brewing, bottling, and chemical-process plants.

FEATURES

ECONOMY

At last, a high quality yet economical low capacity chlorinator. Proof that quality does not have to be expensive.

SAFETY

All-vacuum operation. Remote ejector and direct cylinder mounting insures the highest degree of operator safety.

CONSTRUCTION

Fine silver rate valve and inlet valve provide long life and accurate control. All machined body parts produce the most durable chlorinator available.

UNINTERRUPTED TREATMENT

The availability of automatic switchover provides uninterrupted treatment. This feature permits changing used cylinders at the operator's convenience without stopping the chlorine supply.

SYSTEM INSTALLATION AND FIELD UPGRADING

- The self - aligning yoke mounts the regulator directly on a gas cylinder or header valve.
- The ejector is designed for installation at the point of application, eliminating the need for lenghty pressurized solution lines.
- The gas flowmeter may be remotely located for operator convenience.
- The system can easily be field upgraded for automatic flow proportioning, residual or compound loop control.

TECHNICAL DATA SHEET

ACCURACY
within 4% of maximum flowmeter capacity

OPERATING RANGE
20:1, manual
or 10:1, automatic

OPERATING TEMPERATURE
Ejector, 35°F to 120°F;
Other components, -20°F to 120° F

TUBING CONNECTIONS
3/8" vacuum and vent

BACK PRESSURE
Maximum back pressure at point of application for a standard ejector is 140 psig. For greater pressures, consult factory.

MODEL INFORMATION CODE

Model 4 □ □ □ □

Maximum Capacity	
1	100 ppd (2.0 kg/h)
2*	200 ppd (4.0 kg/h)
5*	500 ppd (10.0 kg/h)

Available Gas Flowmeter	
3	4 ppd (75 g/h)
4	10 ppd (200 g/h)
5	25 ppd (0.5 kg/h)
6	50 ppd (0.9 kg/h)
7	100 ppd (2.0 kg/h)
X	Customized range

Vacuum Regulator Mounting	
1	Direct cylinder or manifold mounted with rate valve.
3	Direct cylinder or manifold mounted with remote mounted meter panel with rate valve.
5	Two direct cylinder or manifold mounted vacuum regulators, automatic switchover module and remote mounted meter panel with rate valve

Gas	
C	Chlorine
A*	Amonium
B*	Carbon dioxide
S*	Sulfur dioxide

INSTALLATION PACKAGES

Supplied Equipment included with each model

4 □□1□	One (1)	Vacuum regulator with gas flowmeter, rate valve and chlorine supply indicator
	One (1)	Ejector/diffuser assembly with 25' (8m), 3/8" vacuum and vent tubing
	One (1)	Vent outlet screen
	One (1)	Standard installation and spare parts kit*
4□□3□	One (1)	Vacuum regulator with gas flowmeter and chlorine supply indicator (no rate valve)
	One (1)	Remote mounted meter panel with gas flowmeter and rate valve
	One (1)	Ejector/diffuser assembly with 25' (8m), 3/8" vacuum and vent tubing
	One (1)	Vent outlet screen
	One (1)	Standard installation and spare parts kit*
4□□5□	Two (2)	Vacuum regulators with gas flowmeters and chlorine supply indicators (no rate valves)
	One (1)	Automatic switchover module, vacuum operated
	One (1)	Remote mounted meter panel with gas flowmeter and rate valve
	One (1)	Ejector/diffuser assembly with 50' (15m), 3/8" vacuum and vent tubing.
	Two (2)	Vent outlet screens
	One (1)	Standard installation and spare parts kit*

Standard Installation and Spare Parts Kit

One (1)	1" hose adaptor
Twelve (12)	#GA-LED-111 (lead gaskets)
Two (2)	1" hose clamps
One (1)	Multi-purpose cylinder wrench
One (1)	Ammonia bottle for checking connections
Two (2)	#GA-BUN-106 (nozzle gaskets)
One (1)	#GA-VIT-122 (ejector seat)
Two (2)	#OR-VIT-008 (rate valve o-rings)
Two (2)	#GA-VIT-100 (flowmeter gaskets)
One (1)	#VR-455-500 (replacement filter)
One (1)	Operation and Maintenance Manual

For more information, please contact your nearest regional office, or authorized distributor.

1875 Century Park East,1880, Los Angeles, CA 90067 Tel 310-201 5959 Fax 310-203 9458

Desalination Processes
Deionization Processes
Municipal Water Treatment
Industrial Water Treatment
Municipal WasteWater Treatment
Industrial WasteWater Treatment
Chemical Services
Technical Services

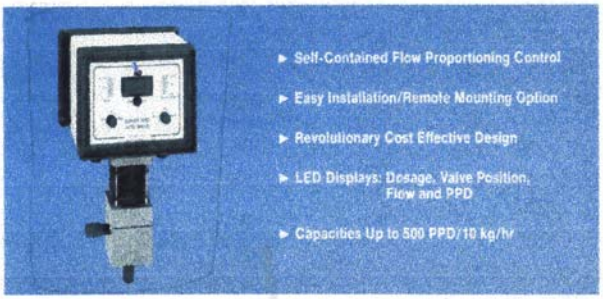
*Consult factory

Specification Bulletin

SERIES 1000 AUTOMATIC VALVE

1.0 SCOPE

This specification describes an EBD Water Series 1000 Automatic Valve.



2.0 DESCRIPTION

The Automatic Valve shall be the model _____ EBD Water Auto Valve. It shall provide a controlled flow of gas in proportion to a signal from an external source such as a flowmeter, analyzer, or other process monitor. The standard input signal is 4-20 mADC into a 250 ohm resistance, powered by 115vAC. The Auto Valve may be installed in any vacuum operated gas feed system with capacities up to 500 ppd (Cl_2). The Auto Valve shall have a maximum capacity of _____ pounds per day and be calibrated with range of _____ pounds per day.

3.0 VALVE & MOTOR

The Valve assembly shall be a diaphragm sealed linear actuated needle valve using a corrosion resistant stem and seat, elastomer diaphragm and PVC housing. The linear stepper motor shall position the valve stem in response to changes in the input signal and provide a resolution of 768 motor steps per inch of valve travel.

4.0 CONTROLS & DISPLAYS

Auto Valve controls shall provide; dosage ratio control (valve response to signal input) from 0 to 2:1, selection of automatic or manual operation, manual feed adjustment from 0 to 100% capacity and power on-off switch. The panel shall use an LED digital display to give an indication of gas flow rate. LED bar graphs shall indicate dosage ratio and valve position.

5.0 OPTIONS

The Auto Valve controls and panel displays shall be housed in a NEMA 4 ABS enclosure. This enclosure shall be available for wall or panel mounting. The Valve and motor assembly shall be available as an integral part of the controller or may be specified for remote mounting. Materials and calibrations shall be available for; chlorine, sulfur dioxide, ammonia and carbon dioxide gasses.

EBD

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GAS DETECTOR

Series 1700

- ❒ FAST-ACTING, ACCURATE REACTIONS TO CHLORINE OR SULFUR DIOXIDE
- ❒ FULLY SELECTABLE SET-POINT CONTROL WITH AUDIBLE AND VISUAL ALARMS
- ❒ FULL STATUS DISPLAY WITH SIMULTANEOUS, 8 DIGIT LCD AND LED BAR GRAPH
- ❒ STURDY, RELIABLE CONSTRUCTION AND HOUSED IN WEATHERPROOF ENCLOSURE
- ❒ COMPACT, FAIL-SAFE DESIGN; WITH OPTIONAL 12V BATTERY BACK-UP
- ❒ SIMPLE INSTALLATION AND ALARMS SET-UP

DESCRIPTION

The Series 1700 is a fast-acting, fail safe detector of Chlorine or Sulfur Dioxide gas. It accurately covers the range 0-30 parts per million (ppm) of the gas in air. The 1700 Gas Detector is sensitive yet sturdy enough to operate reliably across a wide range of temperatures and humidity and in local and remote industrial applications, such as water and wastewater treatment plants.

The Series 1700 is a compact system that is weatherproof and includes an electrochemical Gas Sensor and a microprocessor-based Alarm Indicator Unit , both designed for wall mounting.

FEATURES

GAS SENSOR

The Series 1700 sensor is housed in a weatherproof enclosure with an LED to indicate that power supply is present. The sensor is stable and practically maintanance free. Its cell is designed to provide trouble free performance throughout its life and can be replaced easily.

The sensor is a high resolution transducer that reacts quickly to changing levels of ambient gas, transmitting a proportional 4-20mA signal to the alarm indicator.

A second point sensor may be provided as an option, for local or remote installations.

ALARM INDICATOR UNIT

On the Alarm Indicator panel, the gas type followed by its ppm value is shown at one second intervals on an eight digit LCD. Simultaneously, the gas level is indicated on an LED bar graph.

Any alarm condition is signalled by an audible and visual alarm, and its source identified on the LCD display.

The LCD also indicates whether the audible alarm is operative and facilitates the alarm setting procedure.

A 12V battery, built into the Alarm Indicator, provides back-up power in case of main power supply failure.

ALARM SETTINGS

There are five alarm conditions: 1-Low, 2-High, 3-Critical (all three of which may be selectable between 0.1-29.9 ppm), 4-Sensor Failure Alarm, 5-Power Supply Failure.

The alarm set-up is achieved simply via the Alarm Indicator's keyboard and stored in the EEPROM memory. The memory is secure until overwritten regardless of main power or battery power status. To test or clear alarms there is a simple verify and cancel procedure.

TECHNICAL DATA

GAS SENSOR

TYPE:
CL_2 Or SO_2 three electrode fuel cell with transmitter housed in weatherproof enclosure.

RANGE:
Auto range 0-10/0-20/0-30 ppm CL_2 Or SO_2 in atmosphere.

OPERATING TEMPERATURE:
0-55°C.

OPERATING HUMIDITY:
0-99° non condensing.

OPERATING PRESSURE:
Ambient +/- 10%.

OUTPUT:
4-20mA proportional to CL_2 Or SO_2 concentration.

ACCURACY DRIFT:
+/- 2%: Full Scale Drift/Month.

SENSITIVITY:
0.1 PPM.

REPEATABILITY:
+/- %.

SENSOR WARRANTY:
1 year.

DIMENSIONS:
Width 4-3/4" (120mm) x Depth 4-3/4" (120mm)
x Height 3-9/64" (80mm).

CONNECTED CABLE:
Four conductor shielded cable to alarm unit. 6 feet standard cable length. Maximum overall cable length between sensor and alarm indicator is 650 feet.

ALARM INDICATOR UNIT

CASE
Polycarbonate enclosure with a clear door.

DISPLAY:
Eight digit LCD shows monitoring/system status, LED bar graph indicates gas level.

ALARM WARNINGS:
Alarms are indicated visually by a red LED, and audibly by a repetitious alarm emiting 70-90 db @ 3'.

ALARM SETTINGS:
Low alarm minimum -0.1 ppm.
High alarm maximum -29.9 ppm.
Critical alarm minimum - same as high alarm.
Sensor failure alarm - input from sensor has fallen below 3.5mA.
Power supply alarm - main power failure: system operating from battery.

ALARM CONTACT:
Relays are configured to be normally open. Relays are rated for 30 vdc/250 vac/5 amp.

SET-UP CONTROLS:
Five keypad, toggle action membrane; "Mode", "Up", "Down", "Alarm", "Accept".

OUTPUT:
4-20mA isolated into maximum impedance of 1.0 K ohms.

POWER SUPPLY:
110/220vac, 15vac maximum. Optional battery: 12vdc provides 12 hours power supply when fully charged.

DIMENSIONS:
Width 7-7/8" (200mm) x Depth 6-11/16" (170mm) x Height 8-1/4" (210mm).

ALARM INDICATOR WARRANTY:
1 year.

For more information, please contact your nearest regional office, or authorized distributor.

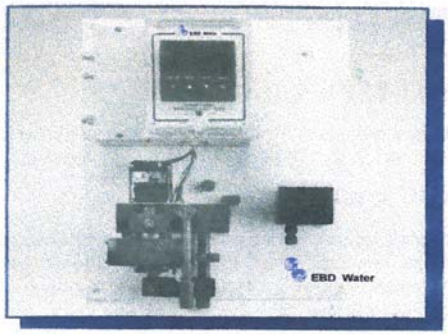
1801 Avenue of the Stars,1107, Los Angeles, CA 90067 Tel 310-201 5959 Fax 310-203 9458

Specification Bulletin

SERIES 8000 RESIDUAL ANALYZER

1.0 SCOPE

This specification describes an EBD Water Series 8000 Chlorine Residual Analyzer.



2.0 DESCRIPTION

The EBD Water Series 8000 Chlorine Residual Analyzer shall continuously analyze a liquid sample in an amperometric type cell and produce a current output poroportional to the free chlorine/total chlorine/chlorine dioxide/potassium permanganate residual in the sample. The range of the analyzer shall be field selectable from 0-0.5 mg/l to 0-20 mg/l with continuous output to 1 part per million (PPM).

3.0 DESIGN

The Series 8000 Chlorine Residual Analyzer shall be wall panel / wall cabinet mounted. The electrodes shall be fixed and shall be continuously cleaned by the action of small PVC spheres moved in a spatial action between the surfaces by a motor driven striker. The sample flow to the cell shall be kept constant by the built-in gravity flow regulator design. Automatic temperature compensation shall be provided. A pH buffer solution feed system shall provide pH in the cell to reduce signal drift. An optional CO2 gas buffer system shall also be available.

RESIDENTIAL REVERSE OSMOSIS SERIES

Technical Data Sheet - 1

EBD Model RE300C18 Enclosed R.O. Drinking Water Unit
3 Treatment stages for ultimate drinking water quality.

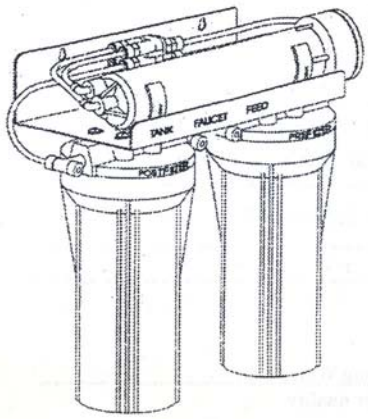
- Eliminates the risks of human waterborne disease outbreaks by removing any traces of pathogens (bacteria, parasites, viruses) and pyrogens (Endotoxins, Organics, etc.).
- Produces low TDS water, perfect for all diets, including low Sodium diets.

Treatment & Accessories

- Prefilter: 5 micron prefilter reduces dirt, sediment and suspended solids.
- R.O.Membrane: 18 GPD removes all organic and inorganic contamination, reducing the total dissolved solids(TDS).
- Post filter: Granulated activated carbon filter removes taste and odor problems.
- Pressure tank: 3.2 Gallon Capacity.
- Long reach faucet.
- Installation kit.

Special Convenience Features

- Enclosed R.O. system can be wall mounted or installed in any undercounter position.
- Operates on inlet water pressure as low as 40 psi.
- Booster pump may be easily added in low pressure situations.
- Continuous fresh, safe drinking water supply through the storage/pressure tank.



Replacement Parts

Number	Description	Frequency
IL 215 P	Sediment Filter	2-3 Months
IL 215 C	R.O. membrane	2-3 Years
CTA-18	Carbon Filter	5-6 Months

Packaging

Units/ Carton	Weight/ Carton	Dimensions / Carton (L×W×H)
1	27 Lbs (12.3 Kg)	27×16×17 (in.) [43.2x40.6x43.2 (Cm)]

REVERSE OSMOSIS ELEMENT

Technical Data Sheet

The After Sales Commitment

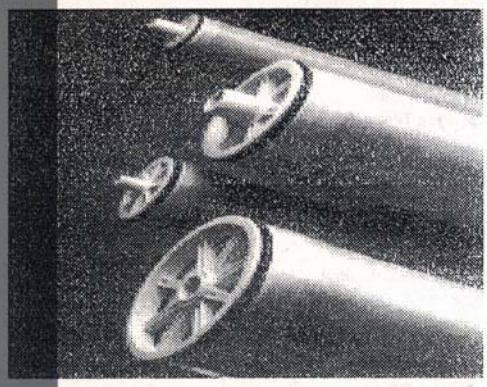
EBD is fully committed to customers' satisfaction. Our commitment, which starts at the early stage of the design process, is continued through each of the Engineering, Supply, Installation, Start-up and Maintenance stages.

Our maintenance efforts are conducted within a comprehensive After Sales Service program, addressing the specific end users needs.

Flexibility and Reliability

EBD offers a full range of Reverse Osmosis membranes, covering different types of materials, sizes and configurations.

As a certified licensee and/or OEM to all major membranes manufacturers, EBD will use sophisticated computer softwares to select the element that best suits your application. EBD will back up its selection by a three year membrane warranty and a one year performance Guarantee.



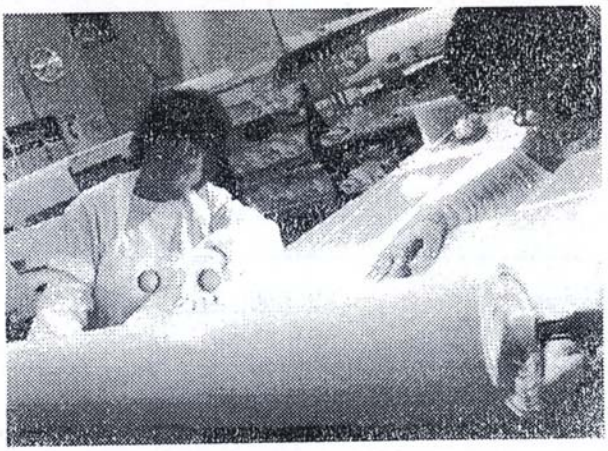
Available Selection

Reverse Osmosis Elements in two different configurations are available: Hollow Fine Fiber or Spiral-Wound.

EBD will supply the Hollow Fine Fiber products, known as permeators, manufactured by Dupont. The permeator is supplied in a complete shell, usually of 4 or 8 inch diameter.

The Spiral-Wound products, known as membranes can be supplied from 4 major manufacturers. Namely Dow Chemical Filmtec, Fluid Systems, Hydranautics and Trisep. The membranes, mainly Cellulose Acetate or Thin Film Composite Polyamide, have a 4 inch or 8 inch diameter.

All Reverse Osmosis elements are available in different membrane areas, offering a range of permeate flows.



Design Data

The following Design Data must be evaluated during the selection of a Reverse Osmosis element

- Element Configuration
- Element Polymer
- Permeate Flow
- Salt Rejection
- Water Recovery
- Maximum Applied Pressure
- Recommended Applied Pressure
- Recommended Operating Temperature
- Feedwater PH range
- Chlorine Tolerance
- Maximum Feed Flow
- Minimum Brine Flow/Permeate Flow ratio
- Maximum SDI
- Maximum Turbidity

Based on the Feedwater analysis, the product requirements and the specific nature of a project, EBD will run each of the membrane manufacturer's computer projection programs, and its own developed comparison software to select the Best Reverse Osmosis Element for the application.

Spare parts & Consumables Services

The After Sales Commitment

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Our maintenance efforts are conducted within a comprehensive After Sales Service program, addressing the specific end users' needs.

The "Service and Parts" Concept

EBD offers operation and maintenance services as well as spare parts and consumables supply worldwide. This is true for all water and wastewater treatment plants whether supplied by EBD or by others. Our technical services department can customize service contracts to best suit individual needs. The programs are based on: Field Technical Services within 24 hours on call. Spare parts and consumables supply from regional inventories. Application Engineering support through Centralized Customer Service Departments.

Range of Spare Parts & Consumables

Reverse Osmosis Systems

Membranes
Cartridge Filters
Instruments and Controls Repair Kits
Valves and Pipework
Pumps Repair Kits

Sewage Treatment Systems

Blowers Repair Kits
Pumps Repair Kits
Air Diffusers
Spray Nozzles
Valves and Pipework
Instruments and Controls Repair Kits

Filtration, Softening, Demineralization Systems

Media and Resins
Internals
Valves and Pipeworks
Instruments and Controls Repair Kits

Chemicals

Reverse Osmosis Antiscalant
Reverse Osmosis Cleaning Chemicals
Cooling Water Treatment Additives
Coagulants/Flocculants/Polymers
Boiler Water Treatment Additives.

EBD

EBD Water

AUTOMATIC SOFTENERS

Series 2000-3000

- ❒ CORROSION FREE CONSTRUCTION
- ❒ FULLY AUTOMATIC OPERATION
- ❒ WORLD WIDE TRAINED REPRESENTATIVES AND FACTORY TRAINED SERVICE
- ❒ HIGH CAPACITY ADVANCED RESINS
- ❒ ASME CODE TANKS RATED AT 150PSI
- ❒ STANDARD RANGE OF FLOWS UP TO 300 GPM AND HARDNESS UP TO 400 PPM °*

APPLICATIONS

■ The series 2000 - 3000 automatic softeners are designed to resolve the hardness problems in domestic water. They are suitable for use in hundreds of commercial, industrial and institutional applications.

OPTIONS

- By - pass
- 220 V / 1Ph/ 50 Hz
- Meter regeneration
- Twin systems
- Pretreatment & postreatment
- Auxilliary switches

SPECIFICATIONS

MODEL	Exchange Capacity (Grains) @15 # / ft³	Exchange Capacity (Grains) @ 6 # / ft³	Pipe Size In.	Meter Size In. (3)	Flow Rate (GPM) Service Average	Flow Rate (GPM) Service Peak	Flow Rate (GPM) Back Wash	Resin Ft³	TANKS SIZES (Inch.) Softener	TANKS SIZES (Inch.) Brine	Salt Storage (Lbs)	DIMENSIONS L (1)	DIMENSIONS W	DIMENSIONS H (2)
25F01260			3/4	3/4	14	19								60
27F01260			1	1	18	24								60
28F01260			1.5	1	24	37								60
29F01260	60,000	40,000	2	2	28	49	3.5	2	12 X 52	22.5 X 34	210	41	23	65
25F01375			3/4	3/4	13	18								61
27F01375			1	1	18	24								61
28F01375			1.5	1	29	40								61
29F01375	75,000	50,000	2	2	37	52	4	2.5	13 X 54	22.5 X 34	263	42	23	67
25F01490			3/4	1	15	20								71
27F01490			1	1	19	26								71
28F01490			1.5	1	27	40								71
29F01490	90,000	60,000	2	2	37	54	5	3	14 X 65	22.5 X 34	315	43	23	77
27F16120			1	1	20	27								71
28F16120			1.5	1	33	45								71
29F16120	120,000	80,000	2	2	47	64	7	4	16 X 65	24 X 48	420	46	25	77
27F18150			1	1	21	28								74
28F18150			1.5	1.5	37	49								74
29F18150	150,000	100,000	2	2	56	78	9	5	18 X 65	24 X 48	525	48	25	79
27F21180			1	1	21	28								74
28F21180			1.5	1.5	40	54								74
29F21180	180,000	120,000	2	2	63	81	12	6	21 X 62	24 X 48	630	51	25	79
27F21210			1	1	20	27								76
28F21210			1.5	1.5	39	52								76
29F21210	210,000	140,000	2	2	60	77	12	7	21 X 62	24 X 48	525	51	25	82
28F24240			1.5	1.5	42	56								81
29F24240			2	2	74	97								86
39F24240	240,000	160,000	3	3	107	170	15	8	24 X 72	24 X 48	480	54	25	92
28F24300			1.5	1.5	40	54								81
29F24300			2	2	68	91								86
39F24300	300,000	200,000	3	3	120	170	15	10	24 X 72	24 X 48	450	54	25	92
28F30450			1.5	1.5	44	58								87
29F30450			2	2	84	105								93
39F30450	450,000	300,000	3	3	158	212	25	15	30 X 72	31 X 48	675	67	32	96
31F36600			2	2	78	107								93
39F36600	600,000	400,000	3	3	185	250	35	20	36 X 72	42 X 48	900	84	43	98
31F42750			2	2	86	113								95
39F42750	750,000	500,000	3	3	186	246	50	25	42 X 72	42 X 48	1125	90	43	100
31F42900			2	2	84	118								95
39F42900	900,000	600,000	3	3	200	268	50	30	42 X 72	48 X 48	1350	96	49	100
31F481050			2	2	83	109								101
39F481050	1,050,000	700,000	3	3	166	240	50	35	48 X 72	48 X 48	1575	107	48	106
31F481200			2	2	88	116								101
39F481200	1,200,000	800,000	3	3	213	280	70	40	48 X 72	48 X 48	1800	102	49	106

(1) Data listed is for single length. Add softener tank diameter plus 6" for twin length.

(2) Clearance of at least 24" must be allowed for tank loading and inlet piping.

(3) Meter is an option.

For more information, please contact your nearest regional office, or authorized distributor.

1875 Century Park East, 1880, Los Angeles, CA 90067 Tel 310-201 5959 Fax 310-203 9458

Desalination Processes
Deionization Processes
Municipal Water Treatment
Industrial Water Treatment
Municipal WasteWater Treatment
Industrial WasteWater Treatment
Chemical Services
Technical Services

*Consult factory

[0]*ppm as $CACO_3$ (consult factory for customized units handling higher feedwater flows and hardness).

CARTRIDGE FILTER ELEMENT

Technical Data Sheet

Description

Disposal depth type graded density cartridge filter. This premium media blanketed, yarn wound cartridge is produced by an exclusive process. The yarn is wound spirally to secure the media blanket in position. This process creates large diamond shaped filter chambers that dramatically improve flow performance and dirt holding capability.

Special Features

- Higher Flow Rates
- Lower Differential Pressures
- Full Length Media Blanket
- Graded Density

Applications

- Potable Water
- Sewage
- Beverages and Food Products
- Alcohols, Acids and Alkalis
- Plating Solutions

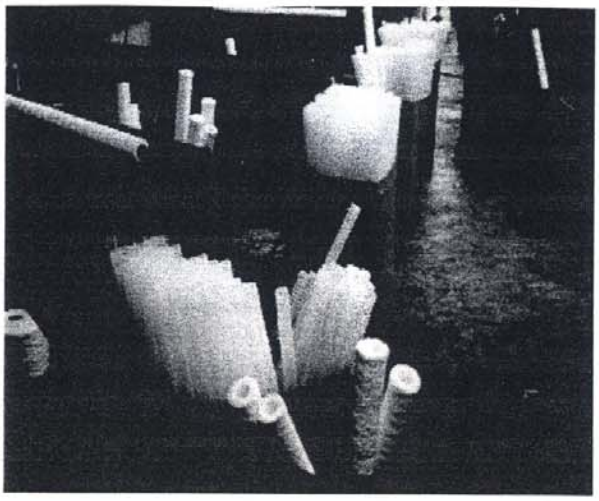
General Specifications

- Nominal Cartridge Diameter: Standard Size of 1.1" x 2.5" (I.D x O.D)
- Economy and Large Sizes Available
- Lengths: Fits competitive housing lengths.
- Micron Ratings: 0.5, 1, 3, 5, 15, 20, 25, 50, 75, 100 and 350.
- Maximum Operating Temperature: 250°F (121°C) depending on material.
- Maximum Differential Pressure: 60 psid. It is recommended that cartridges be replaced at 15 to 25 psid for maximum efficiency and economy.
- Flow Rate: Dependant on grade and pressure. Average 5 to 15 gpm per 10" long cartridge.
- Filter Medium: FDA & NSF Approved. Polypropylene, bleached cotton, rayon, polyester or polypropylene.

  Core Material: Polypropylene, tinned steel, 304 or 316 stainless steel. Extended core adapters and metal cartridge spacers are available.
- O-rings (Sizes of 222 or 226 are available): Ethylene, Polypropylene, Viton A, Buna N, Silicone.

TREATMENT TECHNOLOGIES

Desalination Processes
Deionization Processes
Municipal Water Treatment
Industrial Water Treatment
Municipal Wastewater Treatment
Industrial Wastewater Treatment
Chemical Services
Technical Services



EBD Model I 200 F400 S1SD

Specifications

Nominal Particle Removal Rating:	20 Microns
Media:	FDA Grade Polypropylene
Cartridge Length:	W/O Core Extension 40 Inches
Core Extension:	1 Inch
Core Material:	Polypropylene
Nominal Cartridge Diameter:	1.1" x 2.5" (I.D x O.D)

* Other models available upon request.