



### **MFG Series**



# PACKAGED WATER FILTERS



**OPTIONAL:** Preloaded, skid mounted, prepiped, prewired, and packaged with service/backwash pumps.





# For Applications Such As-

Apartment Buildings • Boiler Feed Water • Cooling Towers • Car Wash Dairies • Factories • Laundromats • Motels • Nursing Homes Office Buildings • Resorts • Restaurants • R.O. Pretreatment • Schools

**Quality Products for Quality Water** 

### Standard Features For Reliability, Performance, and Quality Assurance

Over the years, Marlo has built a reputation as an industry standard for high quality water treatment systems and equipment.

Marlo MFG Packaged Water Filters reflect that overall commitment to excellence and are fabricated using field-tested designs with a proven record of service reliability.

The MFG Series provides the latest technology in fiberglass tanks with top mounted control valves, along with hardware standardization. Only the filter media needs to be changed to successfully treat various water problems.

- Seamless Non-Metallic, Fiberglass Filter Tanks
   Provides maximum corrosion resistance at one third the shipping weight of steel tanks.
- Extended Warranty
   Fiberglass filter tanks are covered by a 5 year extended warranty.
- All Brass, Motor Driven Control Valve with 7 Day Selective Time Clock and Fully Adjustable Backwash Cycles

Eliminates problems caused by fluctuating water pressure and allows for simplified adjustments to handle those severe water problems.

Inlet / Outlet Service Connections of 1" thru 3"
 Provides recommended service flow rates at
 minimal pressure loss.

#### • Filter Media Bed

The filter media has been properly chosen and quality inspected to insure optimum performance.

Factory Assembled, Tested and Palletized Prior to Shipment

Eliminates shipping damage and lost cartons during transit.

• Automatic Built-in Bypass

Provides unfiltered service water during the backwash period.

- Self-Adjusting Backwash Controller
   Requires no field adjustment regardless of water pressure.
- Non-Clogging Underdrain System
   Durable, non-corrosive ABS fine slotted underdrain provides trouble-free operation.

#### **FILTER MEDIA**

- **MGA-** Manganese Greensand- For the oxidation and removal of iron, manganese, and hydrogen sulfide. Provides filtration level to 30 micron. Includes a potassium permanganate regeneration assembly to restore the oxidative capacity of the filter media.
- AGA- Filter AG- Non-hydrous aluminum silicate for removal of sediment, dirt and other forms of suspended matter. Reduction down to 25 micron can be expected. Lower backwash rates and less backwash water is required over traditional sand media filters.
- ACA- Activated Carbon- Coal based, granular activated carbon (GAC) for the removal of chlorine, dissolved organics and compounds which cause undesirable tastes and odors.
- MID- Multi-Media-Various medias (anthracite, quartz sand, garnet) have been selected according to material density and particle size. This is done so that after backwash, the three media layers are automatically restratified, allowing the filter to return to service without the need for extended rinse cycle time. For removal of sediment, dirt and other forms of suspended matter. Provides particle filtration down to 10 micron with increased service flow rate per square foot bed area over traditional sand media filters.
- **ANA-** Calcite Crushed and screened white marble material used to neutralize acidity by increasing the pH value. For neutralizing acidic or low pH waters to a neutral, non-corrosive effluent.

# **MFG Series Filter Specifications**

MGA FILTERS

MODEL	Pipe	SERVICE FI	LOW RATE	Backwash	Drain	Tank Size	Filter Media
	Size	Normal / PSID	Peak / PSID	Flow Rate	Size	Inches	Quantity
	Inches	(G.P.M.)*	(G.P.M.)*	(G.P.M.)	Inches	Dia. x Ht.	Cu. Ft.
MGA-10G	1	2 2	5 5	5.0	3/4	10 x 54	1
MGA-12G	1	4 4	8 7	8.0	3/4	12 x 52	2
MGA-12G	1 1/2	4 3	8 6	8.0	1	12 x 52	2
MGA-14G	1	5 4	10 8	10.0	3/4	14 x 65	3
MGA-14G	1 1/2	5 3	10 7	10.0	1	14 x 65	3
MGA-16G	1	7 4	14 11	15.0	1	16 x 65	4
MGA-16G	1 1/2	7 4	14 8	15.0	1	16 x 65	4
MGA-18G	1	9 5	18 13	20.0	1	18 x 65	5
MGA-18G	1 1/2	9 4	18 8	20.0	1	18 x 65	5
MGA-21G	1 1/2	12 4	24 12	25.0	1 1/2	21 x 62	7
MGA-21G	2	12 4	24 8	25.0	1 1/2	21 x 62	7
MGA-24G	1 1/2	15 5	31 6	30.0	1 1/2	24 x 71	10
MGA-24G	2	15 4	31 8	30.0	1 1/2	24 x 71	10
MGA-30G	2	24 4	48 10	50.0	2	30 x 72	15
MGA-30G	3	24 4	48 7	50.0	2	30 x 72	15
MGA-36G	2	35 5	70 13	70.0	2	36 x 72	20
MGA-36G	3	35 4	60 8	70.0	2	36 x 72	20
MGA-42G	2	48 7	96 19	95.0	3	42 x 72	30
MGA-42G	3	48 4	96 9	95.0	3	42 x 72	30

<sup>\* 10</sup> psi is the maximum recommended pressure drop to avoid permanent damage to this manganese greensand.

### **AGA FILTERS**

MODEL	Division	SERVICE F	LOW RATE	Davis	Desir	Taraka O'ra	Ethan Mardia
	Pipe	Name of / DCID	Deels / DOID	Backwash	Drain	Tank Size	Filter Media
	Size	Normal / PSID	Peak / PSID	Flow Rate	Size	Inches	Quantity
	Inches	(G.P.M.)	(G.P.M.)	(G.P.M.)	Inches	Dia. x Ht.	Cu. Ft.
AGA-10G	1	2 2	5 3	5.0	3/4	10 x 54	1
AGA-12G	1	4 2	8 4	8.0	3/4	12 x 52	2
AGA-12G	1 1/2	4 2	8 3	8.0	1	12 x 52	2
AGA-14G	1	5 2	10 5	10.0	3/4	14 x 65	3
AGA-14G	1 1/2	5 2	10 3	10.0	1	14 x 65	3
AGA-16G	1	7 3	14 7	15.0	1	16 x 65	4
AGA-16G	1 1/2	7 2	14 4	15.0	1	16 x 65	4
AGA-18G	1	9 3	18 10	20.0	1	18 x 65	5
AGA-18G	1 1/2	9 2	18 5	20.0	1	18 x 65	5
AGA-21G	1 1/2	12 2	24 6	25.0	1 1/2	21 x 62	7
AGA-21G	2	12 2	24 4	25.0	1 1/2	21 x 62	7
AGA-24G	1 1/2	15 3	31 8	30.0	1 1/2	24 x 71	10
AGA-24G	2	15 2	31 4	30.0	1 1/2	24 x 71	10
AGA-30G	2	24 2	48 6	50.0	2	30 x 72	15
AGA-30G	3	24 2	48 3	50.0	2	30 x 72	15
AGA-36G	2	35 3	70 9	70.0	2	36 x 72	20
AGA-36G	3	35 2	70 4	70.0	2	36 x 72	20
AGA-42G	2	48 5	96 15	95.0	3	42 x 72	30
AGA-42G	3	48 2	96 5	95.0	3	42 x 72	30

### **ACA FILTERS**

ACATILIT	-113						
MODEL	Pipe	SERVICE FL	OW RATE	Backwash	Drain	Tank Size	Filter Media
	Size	Normal / PSID	Peak / PSID	Flow Rate	Size	Inches	Quantity
	Inches	(G.P.M.)	(G.P.M.)	(G.P.M.)	Inches	Dia. x Ht.	Cu. Ft.
ACA-10G	1	2 2	5 4	5.0	3/4	10 x 54	1
ACA-12G	1	4 3	8 6	8.0	3/4	12 x 52	2
ACA-12G	1 1/2	4 3	8 5	8.0	1	12 x 52	2
ACA-14G	1	5 3	10 6	10.0	3/4	14 x 65	3
ACA-14G	1 1/2	5 3	10 5	10.0	1	14 x 65	3
ACA-16G	1	7 4	14 9	14.0	3/4	16 x 65	4
ACA-16G	1 1/2	7 3	14 6	14.0	1	16 x 65	4
ACA-18G	1	9 4	18 11	18.0	1	18 x 65	5
ACA-18G	1 1/2	9 3	18 6	18.0	1	18 x 65	5
ACA-21G	1 1/2	12 3	24 8	24.0	1 1/2	21 x 62	7
ACA-21G	2	12 3	24 5	24.0	1 1/2	21 x 62	7
ACA-24G	1 1/2	15 4	31 10	31.0	1 1/2	24 x 71	10
ACA-24G	2	15 3	31 6	31.0	1 1/2	24 x 71	10
ACA-30G	2	24 3	48 8	48.0	2	30 x 72	15
ACA-30G	3	24 3	48 5	48.0	2	30 x 72	15
ACA-36G	2	35 4	70 11	70.0	2	36 x 72	20
ACA-36G	3	35 3	70 6	70.0	2	36 x 72	20
ACA-42G	2	48 6	96 17	95.0	3	42 x 72	30
ACA-42G	3	48 3	96 7	95.0	3	42 x 72	30

### **MFG Series Filter Specifications**

### MID FILTERS

MODEL	DEL Pipe		SERVICE FLOW RATE			Backwash	Drain	Tank Size	Filter Media
	Size	Normal	/ PSID	Peak	/ PSID	Flow Rate	Size	Inches	Quantity
	Inches	(G.F			P.M.)	(G.P.M.)	Inches	Dia. x Ht.	Cu. Ft.
MID-10G	1	5	2	10	6	8.0	3/4	10 x 54	1
MID-12G	1	8	5	16	10	12.0	1	12 x 52	2
MID-12G	1 1/2	8	4	16	5	12.0	1	12 x 52	2
MID-14G	1	10	4	20	13	15.0	1	14 x 65	3
MID-14G	1 1/2	10	3	20	6	15.0	1	14 x 65	3
MID-16G	1	14	6	28	21	20.0	1	16 x 65	4
MID-16G	1 1/2	14	3	28	9	20.0	1	16 x 65	4
MID-18G	1	17	8	34	29	25.0	1 1/2	18 x 65	5
MID-18G	1 1/2	17	4	34	11	25.0	1 1/2	18 x 65	5
MID-21G	1 1/2	25	6	50	18	35.0	1 1/2	21 x 62	7
MID-21G	2	25	3	50	7	35.0	2	21 x 62	7
MID-24G	1 1/2	30	7	60	25	50.0	2	24 x 71	10
MID-24G	2	30	3	60	9	50.0	2	24 x 71	10
MID-30G	2	50	5	100	17	70.0	2	30 x 72	15
MID-30G	3	50	3	100	6	70.0	2	30 x 72	15
MID-36G	2	70	9	140	30	105.0	3	36 x 72	20
MID-36G	3	70	3	140	9	105.0	3	36 x 72	20

### ANA FILTERS

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MODEL	Pipe	SERVICE FL	OW RATE	- Backwash	Drain	Tank Size	Filter Media
	Size	Normal / PSID	Peak / PSID	Flow Rate	Size	Inches	Quantity
							,
	Inches	(G.P.M.)	(G.P.M.)	(G.P.M.)	Inches	Dia. x Ht.	Cu. Ft.
ANA-10G	1	3 3	5 4	5.0	3/4	10 x 54	1
ANA-12G	1	4 4	8 3	8.0	3/4	12 x 52	2
ANA-12G	1 1/2	4 3	8 2	8.0	1	12 x 52	2
ANA-14G	1	6 4	10 4	10.0	3/4	14 x 65	3
ANA-14G	1 1/2	6 4	10 2	10.0	1	14 x 65	3
ANA-16G	1	8 5	14 6	15.0	1	16 x 65	4
ANA-16G	1 1/2	8 4	14 3	15.0	1	16 x 65	4
ANA-18G	1	9 4	18 7	20.0	1	18 x 65	5
ANA-18G	1 1/2	9 2	18 4	20.0	1	18 x 65	5
ANA-21G	1 1/2	12 3	24 6	25.0	1 1/2	21 x 62	7
ANA-21G	2	12 2	24 4	25.0	1 1/2	21 x 62	7
ANA-24G	1 1/2	15 4	30 5	30.0	1 1/2	24 x 71	10
ANA-24G	2	15 2	30 3	30.0	1 1/2	24 x 71	10
ANA-30G	2	20 7	40 9	50.0	2	30 x 72	15
ANA-30G	3	20 2	40 3	50.0	2	30 x 72	15
ANA-36G	2	30 8	60 12	70.0	2	36 x 72	20
ANA-36G	3	30 3	60 4	70.0	2	36 x 72	20
ANA-42G	2	40 4	80 12	95.0	3	42 x 72	30
ANA-42G	3	40 2	80 5	95.0	3	42 x 72	30

### **QUALITY ASSURANCE**

All MARLO units are engineered and thoroughly tested to provide years of trouble-free performance with a minimum of maintenance. All components are factory tested and inspected.

#### **OPERATING SPECIFICATIONS**

- 30 to 125 psi Pressure Range - 110 °F Max Water Temperature

**Electrical Rating** - 120 V, 60 Hz, 10 Watts

- 220 V, 50 Hz, 10 Watts available on request

(Check with factory for other operating conditions)

#### **AVAILABLE OPTIONS**

- No Raw Water Bypass To eliminate raw, unfiltered water bypass during backwash and rinse cycle.
- Separate Source Backwash Backwash water to be supplied from a different source than service water.
- Extra Cam and Switch Dry contacts for control of auxiliary equipment and to provide interlock between filters to prevent them from backwashing at the same time.
- D.P. Initiation Backwash initiated based on differential pressure across the media bed vs. time clock.
- Skid Mounted Multiple filters can be mounted on structural steel skid with all interconnecting piping included.

