

Continental Carbon Group

Continental Filtration Solutions – MAG-50 FILTERS

Continental Pre-Engineered Filtration Systems are rugged, dependable water treatment solutions designed for the rigors of the industrial and municipal markets.

Combining industry leading filtration knowledge with the correct application of MAG-50 media, Continental Carbon has created efficient and durable filtration systems that are designed to operate at high loading rates for use in the reduction of iron, manganese, arsenic, radium and hydrogen sulfide.



Product Features

- Reduced installation costs for these pre-engineered, skid mounted pressure vessels that are pre-piped and pre-wired for economical installations.
- Reduced system footprint sizes for MAG-50 due to the catalytic properties of the media allow for high filter loading rates while maintaining high treatment efficiency.
- Unique straightforward design allows each vessel to operate via a single three-way valve eliminating the need for a dedicated backwash pump.
- High volume backwash rates result in reduction in total backwash volumes as compared to standard, historical sand and anthracite applications.
- Standard stainless steel distribution hub and laterals.
- Dual 11" x 15" clam style man-ways for ease of access and long life.
- Standard design has 100 psig non-code pressure vessels.

Mag-50 Filter Specifications						
Model Number	(Tank Qty) and Size	Total Surface Area (ft ²)	Flow Range (gpm)			Backwash Rate 25 gpm/ft ²
			6.0 gpm/ft ²	7.5 gpm/ft ²	9.0 gpm/ft ²	
PX014060	(3) 14x60	3.21	19	24	29	27
PX018060	(3) 18x60	5.30	32	40	48	44
PX024060	(3) 24x60	9.42	57	71	85	79
PX030060	(3) 30x60	14.73	88	110	133	123
PX036060	(3) 36x60	21.21	128	159	191	178
PX048060	(3) 48x60	37.7	236	339	450	315
PX054060	(3) 54x60	47.7	298	429	570	398
PX054060	(4) 54x60	63.6	398	573	760	398
PX054060	(6) 54x60	95.4	596	859	1140	398
PX054060	(8) 54x60	127.2	795	1145	1520	398
PX054060	(9) 54x60	143.1	895	1290	1720	398

MAG-50

MAG-50 is a highly effective media for the removal of iron, manganese, arsenic, radium and hydrogen sulfide. This robust filter media has proven highly successful in municipal, small community and industrial pretreatment applications where manganese is in the water. Though each treatment application is unique, there are certain general guidelines that need to be followed in order to realize the full benefits of MAG-50.

Oxidant Feed

To maintain and further augment the long-term performance and removal capacity of the media, an oxidant feed is required. This will maintain the oxidation catalyst properties of the media and enhance removal capacity. Chlorine injection up stream of the filter feed is a typical way to meet this requirement. Other acceptable oxidants include air injection (oxygen is an oxidant), potassium permanganate, sodium permanganate, ozone or hydrogen peroxide.

Physical Properties

Bulk Density: 115 lbs./cubic foot

Specific Gravity: 3.8

Mesh Sizes: US 20x40, UK 18/44

Packaging: 60 lb. bags, 2,000 or 2,205 lb. super sacks, 25 kg bags

Conditions for Operation

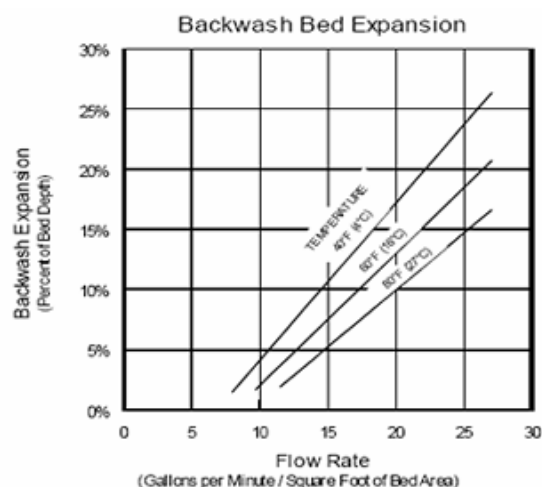
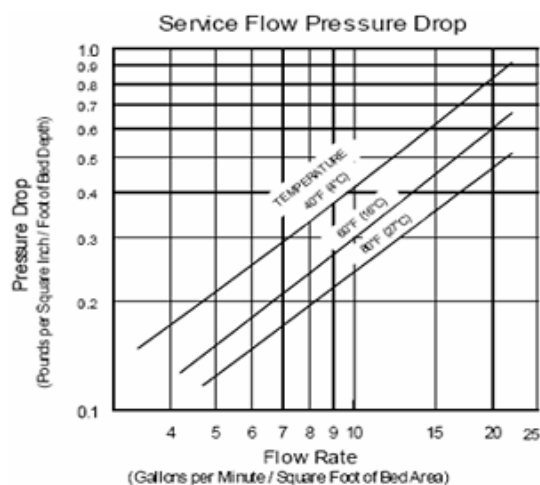
pH: 6.5-9.0

Bed Depth: Dependent on application and water quality.

Underbed: 1/2" to 1/4" washed gravel, 1/4" to 1/8" washed gravel and 1/8" to 1/16" washed silica sand. Other materials are also suitable but must keep media from migrating downward and be heavy enough to remain in place during backwash.

Freeboard: 40% of bed depth (min.)

Typical Service flow rate: 5-12 gpm/ft²





Iron and Manganese Removal Filter Filter Media Specifications

MAG-50

Color	Black
Effective Size	0.3-0.5 mm
Uniformity Coefficient.....	≤ 1.7
Density	Approximately 115 lbs/ft ³
Backwashed Density	Approximately 110 lbs/ft ³
Specific Gravity	4.4-5.1
Package.....	60 lb bags
Bed Depth	36" bed depth
Volume.....	_____ ft ³ per filter vessel

Gravel

Shape	Hard, rounded stones, <2% with length 3 times width
Visual.....	Free of shale, mica, clay, sand, dirt, and organic impurities
Density.....	Approximately 100 lbs/ft ³
Specific Gravity.....	≥ 2.5
Package.....	1 ft ³ poly bags
Specification	Meets AWWA B100
Bed Depth	1/2"x1/4", Head Capacity 1/4"x1/8", 3" deep 1/8"x1/16", 3" deep