# METAL-X™ LITE

## Recommended System Operating Conditions

| | | |
|---|---|---|
| Inlet water pH | | 5.8 – 10.5 |
| Freeboard | | 40% |
| Minimal Bed Depth | US | 29.5 inches |
| | SI | 75 cm |
| Optimal Bed Depth | US | 47 inches |
| | SI | 120 cm |
| Service flow | US | 4 – 12 gpm/ $ft^2$ |
| | SI | 10 – 30 m/h |
| Backwash velocity** | US | 10 – 12 gpm/ $ft^2$ |
| | SI | 25 – 30 m/h |
| Backwash time** | | 10 – 15 minutes |
| Rinse time** | | 2 – 3 minutes |

** Note: Starred parameters could be more or less in some cases depending on inlet parameters.

## Composition

| Compounds | Typical value | Specifications |
|---|---|---|
| ZEOSORB (Naturally Mined) | 85% | >85% |
| Manganese dioxide | 10% | >9.5% |
| Hydrated Lime | 5% | <5% |

## Physical Properties

| | | |
|---|---|---|
| Appearance | | Granular black beads |
| Odor | | none |
| Mesh size | US | 14 x 30 |
| | SI | 0.6 – 1.4 mm |
| Uniformity Coefficient | | ≤1.75 |
| Bulk density | US | 66 lb/ $ft^3$ |
| | SI | 1060 kg/ $m^3$ |
| Moisture Content | | <0.5% as shipped |
| Filtration | | <3 micron |
| Loading Capacity | for $Fe^{2+}$ alone | 3000 mg/ l |
| | | 85000 mg/ $ft^3$ (aprx) |
| | for $Mn^{2+}$ alone | 1500 mg/ l |
| | | 42500 mg/ $ft^3$ (aprx) |
| | for $H_2S$ alone | 500 mg/ l |
| | | 14000 mg/ $ft^3$ (aprx) |

## Regeneration / Dosing*

for 1.0 mg/l of

| | $Fe^{2+}$ | $Mn^{2+}$ | $H_2S$ |
|---|---|---|---|
| $H_2O_2$ | 0.9 mg/l | 1.8 mg/l | 4.5 mg/l |
| $KMnO_4$/Cl | 1.0 mg/l | 2.0 mg/l | 5.0 mg/l |

### FILTERATION OF

- <3 MICRON
- SUSPENDED SOLIDS
- SEDIMENTS
- TURBIDITY
- ODOR

### REMOVAL OF

- IRON
- MANGANESE
- HYDROGEN SULFIDE
- ARSENIC
- RADIUM
- HEAVY METALS
- RADIO NUCLIDES

## Standard Pressure Vessel Listing for Systems (Manual/Automatic)

| Pressure Vessel | | | KL media amount | | | | Service flow rate | | | | Backwash Flow Rate | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vessel Mode | Tank Volume | Free-board | Volume | | | Bed Height | Standard | | Maximum | | | |
| | (liters) | (%) | (%) | (liters) | ($ft^3$) | (mm) | ($m^3$/h) | (gpm) | ($m^3$/h) | (gpm) | ($m^3$/h) | (gpm) |
| 10x44 | 49.0 | 40 | 55 | 28.0 | 1.0 | 580 | 0.5 | 2.20 | 0.6 | 2.64 | 1.40 | 6.2 |
| 13x54 | 105.7 | 40 | 55 | 56.0 | 2.0 | 740 | 1.0 | 4.40 | 1.2 | 5.28 | 2.39 | 10.5 |
| 14x65 | 148.0 | 40 | 55 | 84.0 | 3.0 | 897 | 1.5 | 6.60 | 1.8 | 7.96 | 3.63 | 16.0 |
| 18x65 | 257.0 | 40 | 55 | 140.0 | 5.0 | 940 | 2.5 | 11.00 | 3.0 | 13.20 | 4.59 | 20.2 |
| 21x60 | 310.0 | 40 | 55 | 168.0 | 6.0 | 834 | 3.0 | 13.21 | 3.6 | 15.85 | 6.25 | 27.6 |
| 24x69 | 450.0 | 40 | 55 | 252.0 | 9.0 | 926 | 4.5 | 19.81 | 5.4 | 23.77 | 8.84 | 39.0 |
| 30x78 | 710.0 | 40 | 55 | 392.0 | 14.0 | 935 | 7.0 | 30.82 | 8.4 | 36.98 | 12.76 | 56.3 |
| 36x78 | 1020.0 | 40 | 55 | 560.0 | 20.0 | 932 | 10.0 | 44.02 | 12.0 | 52.83 | 18.37 | 81.0 |
| 42x78 | 1360.0 | 40 | 55 | 756.0 | 27.0 | 913 | 13.5 | 59.44 | 16.2 | 71.32 | 25.01 | 110.3 |
| 48x82 | 1840.0 | 40 | 55 | 1008.0 | 36.0 | 946 | 18.0 | 79.25 | 21.6 | 95.10 | 32.67 | 144.0 |

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