

MATRIKX[®] +5
TECHNICAL
BULLETIN
DATA CHARTS

Revised
10/31/2006

Chlorine Taste and Odor Reduction

Test Results: Standard 2.50 O.D. x 1.25 I.D. x 9.75 L. MATRIKX® 5 extruded carbon filters removed chlorine taste and odor (<0.05 ppm) from an influent containing 2-2.5 ppm chlorine taste and odor flowing continuously at 1 gpm, and maintained this level of removal for a total flow of 3,500 gallons. A chlorine taste and odor reduction efficiency of 90% was maintained even after a total flow of 6,000 gallons.

Test Conditions: Two randomly selected, standard production cartridges were evaluated for chlorine taste and odor reduction.

Flow: 1 gpm, constant.

System Pressure: 60 psi, constant.

Prefiltration: 0.2 µm absolute.

Influent water: 250 gallon batches.

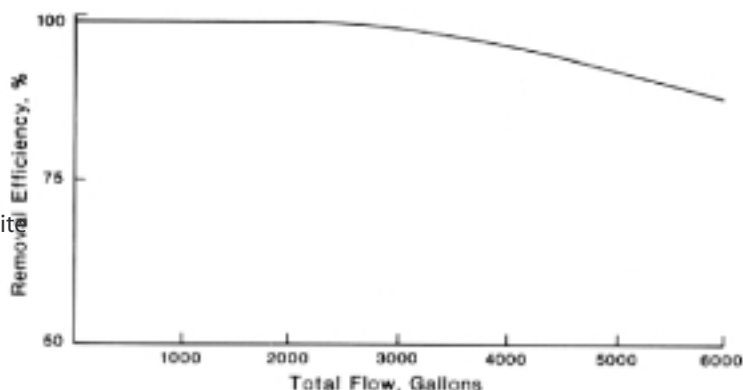
Chlorine taste and odor challenge: sodium hypochlorite @ 2-2.5 ppm

Analysis: Standard methods for the examination of water and wastewater method number 4500-Cl G, used to analyze both influent and effluent water

Total challenge: 6,000 gallons.

Influent water analysis:

Turbidity: <1.0 NTU,	Hardness: 171 mg/L
Prefiltered with	Alkalinity: 26.8 mg/L.
2.0 µm absolute	Temperature: 21°C
prefilter	
pH: 7.6	
TDS: 200 mg/L	



Source of test data: Spectrum Laboratories, New Brighton, Minnesota.

Flow

Test Results: Standard 2.50 O.D. x 1.25 I.D. x 9.75 L. MATRIKX® 5 extruded carbon filters were tested with municipal tap water from Bridgeport, CT at 60 psig system pressure, to determine differential-pressure vs. flow curves. The standard MATRIKX® 5 filters have a P=1.10 psid at 1.0 gallon per minute flow

Resistance

Test Conditions: Three randomly selected, standard production cartridges were subjected to varying flows to determine the initial-differential-pressure vs. flow curve.

Influent water: Bridgeport, CT municipal water

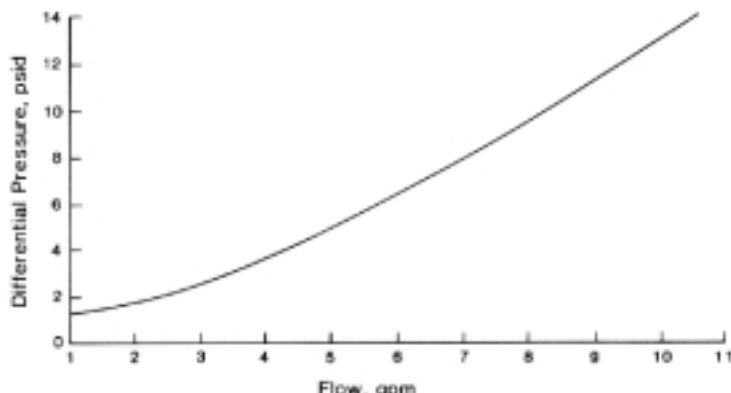
pH of Influent water: 6.3-6.5.

Temperature: 16°C.

System Pressure: 60 psig, constant.

Range of tested flows: 1-9 gpm.

Instrumentation: Omega Engineering FL710 Series, 1 to 11 gpm range, with 0.2 gpm accuracy
Orange Research, Inc. differential pressure gauges, 0 to 40 psid.



Source of test data: KX Industries, L.P., Bridgeport, CT.

Chloroform

Reduction

Test Conditions: Two randomly selected production cartridges were evaluated for chloroform reduction at each flow rate.

Flow rate: 0.5 gpm and 1.0 gpm.

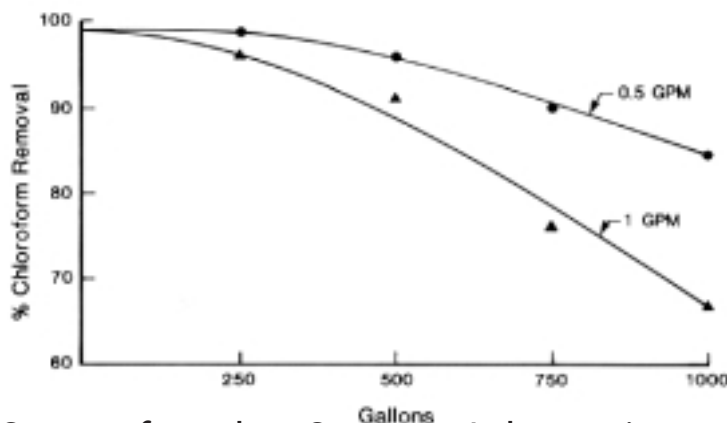
System Pressure: 60 psig.

Average Influent chloroform: 300 ppb

Influent water analysis:

Turbidity: <1.0 NTU,	Hardness: 171 mg/L
Prefiltered with	Alkalinity: 257 mg/L.
0.2 µm absolute	Temperature:
prefilter	21° ± 2° c.
pH: 7.5 ± 0.5	Phosphate:
TDS: 213 mg/L	1.3 mg/L.

Test Results: Standard MATRIKX® 5 2.50 O.D. x 1.25 I.D x 9.75 L. extruded carbon filter cartridges were tested at flows of 0.5 and 1.0 gpm, with an average influent challenge of 300 ppb chloroform. The MATRIKX® 5 cartridges removed >95% of influent chloroform greater than 250 gallons at 1.0 gpm, and for approximately 500 gallons at 0.5 gpm.



Source of test data: Spectrum Laboratories,
New Brighton, Minnesota.

Particulate

Removal

Test Conditions #1: Performed by KX Industries, LP

Instrumentation: Met One ; dual sensor laser counting system, model 233-S157;

Sensor: solid-state laser diode.

Instrument capability: 2 µm to 200 µm.

Influent water temperature: 24°C.

Challenge: 1,500 particles/ml influent, size range: 2 µm to 50 µm.

Flow: 1 gpm, constant.

Sensor flow rate: 50 ml/min.

Particle removal assay: performed at 30 minutes after start of flow through filter element.

Test Conditions #2: Performed by third party testing laboratory.

Test method: single pass retention efficiency per IBR TM E-100.

Instrumentation: Hiac 4200, LAS 346 counter
Hach 2100A sensor elements.

Fluid: deionized water

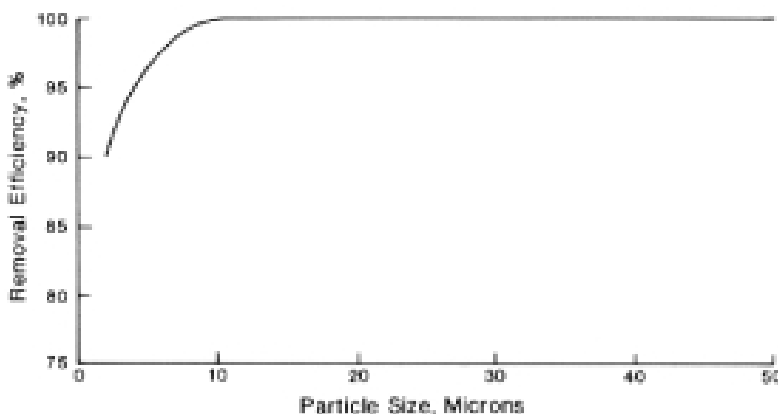
Contaminant: AC fine test dust, LN 1538.

Temperature: ambient

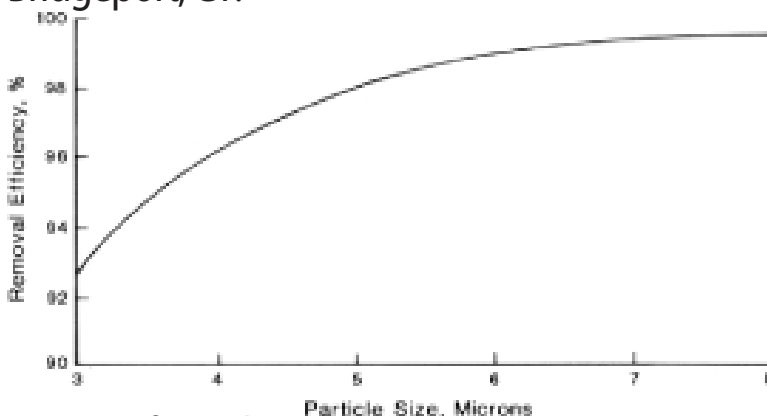
Flow rate: 1 gpm, continuous

Description of samples: filter elements, preflushed for 15 minutes.

Test Results: Five standard 2.50 O.D. x 1.25 I.D. x 9.75 L. MATRIKX® 5 extruded carbon filters were tested for particulate removal with two different particle counting instruments and demonstrated greater than 99% particle removal at 10 µm and > 95% removal at 5µm.



Source of test data: KX Industries, L.P.,
Bridgeport, CT.



Source of test data: Inter Basic Resources, Inc.,
Ann Arbor, Michigan.