SSI test program, MAGNOM Core Technology
Summary of results

Part 1 – General test procedures

Section 1. General Information

1.1 Purpose

- The purpose of this report is to present the results of the Dynamic Filter Efficiency (DFE) test conducted on the filter assembly specified in this report.
- The DFE performance test is used to establish the particle removal capability, contaminant capacity, and pressure loss characteristics of a filter assembly.

1.2 Test Conditions

- The test fluid used in this test was Mil H 5606.
- The temperature of the circulating test fluid was maintained at 38 +/- 2° C.
- The test contaminant used was MTD.
- On-Line particle counters were employed.

1.3 Test Procedures

- The test results were obtained using the single or multi-pass test procedure as applicable.
- All Data derived as a result of this test are presented on the filter element test report sheets contained herein. The contaminant loading and pressure loss characteristics of the filter element are illustrated in this report.
- The test facility for the filter test meets requirements specified by the applicable sections of the filtration test methods of NFPA, SAE, ANSI, and ISO (certain modifications have been made to these procedures to improve reliability and consistency).
- The test work was performed by experienced personnel who routinely conduct such tests on filter elements.
- Sample streams were evaluated by automatic particle counters. The particle counters were calibrated per ISO11171.
- The particle counts reported have been obtained onstream from a continuously flowing sample.

1.4 Interpretation of Test Results

- The results of the test must be applied with consideration for some of the limitations of the method.

- The performance characteristics indicated by the test results are accurate and valid only for the conditions of the test. Performance under field conditions may vary as field conditions deviate from those of the test.

Part 2 – Test details

- Specific test conditions

- starting and ending contamination levels

- Core efficiency graph

Dynamic Filter Efficiency
Performance Test
In Conjunction With
Element Collapse/Burst Strength

Test # LN 90044 - 2 element Core test, single test sequence

Customer : Magnom Corporation
Contract Number : 32309
Filter Part Number : CAT 4T-6788
Test Number : LN090044

SSi Testing Laboratory
Fishers, IN

Date : 03/25/09
Operator : TAD

Test # LN 90044 - 2 element Core test, single test sequence

SSi Testing Laboratory

Section 2. Test Specifications

Customer : Magnom Corporation
Address : 910 W. VanBuren St. Chicago, Illinois 60607

Contact : Keith Day
Phone Number : (312) 738-1147

Test ID : LN090044
Operator : TAD

Contract Number : 32309
Test Fluid : Mil H 5606
Test Contaminant : MTD

Test # LN 90044 - 2 element Core test, single test sequence

Housing :

Part Number	: PFU-0600
Serial Number	: SPIN-ON
Return Housing	: Yes

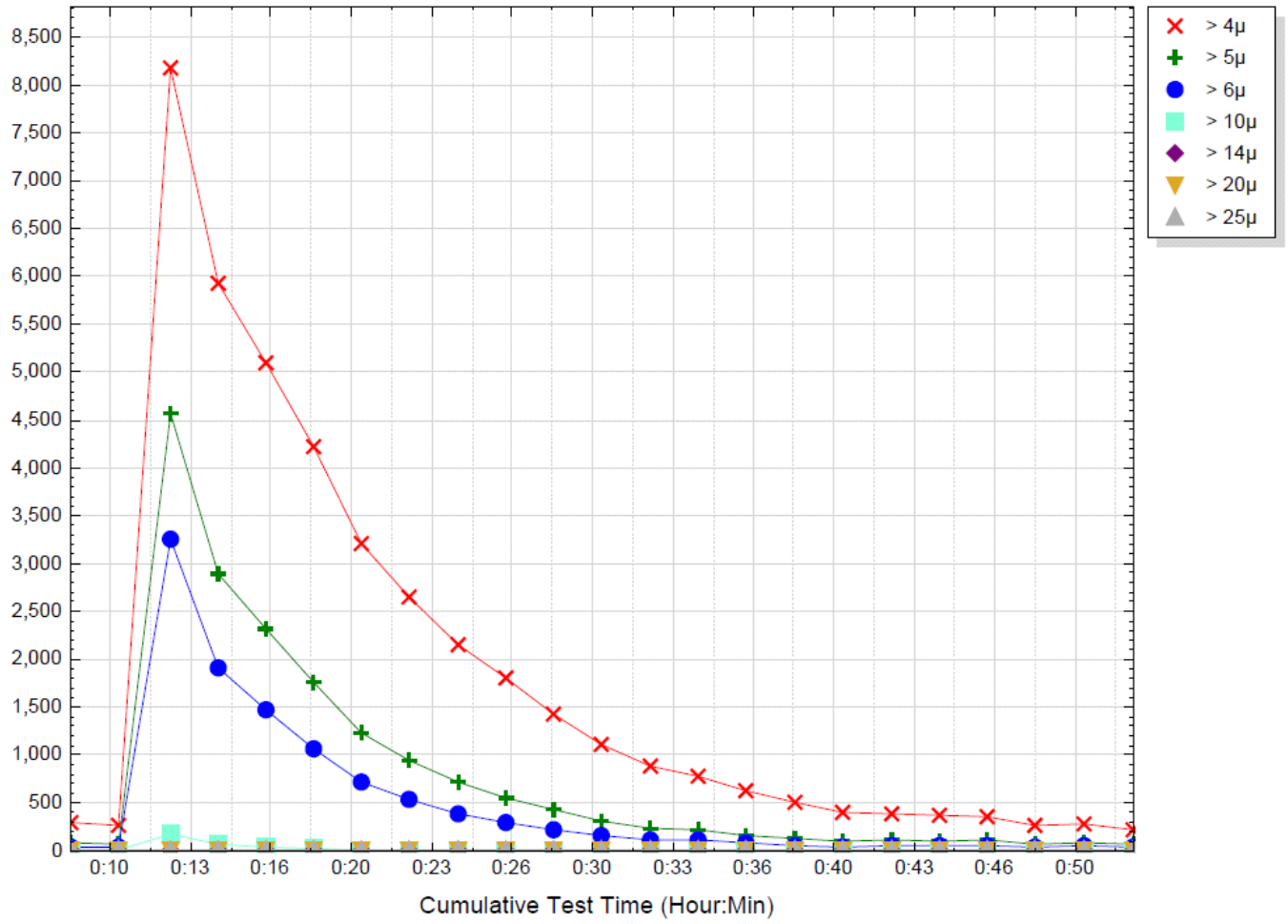
Tests Performed :

- Flow/Differential Pressure Test
- System Cleanliness
- Element Cleanliness
- Multi-Pass Dynamic Filter Efficiency (DFE) Test
- Contaminant Capacity Test
- Loss of Filtration Efficiency/Element Collapse/Burst Strength Test

Test Conditions :

Relative Humidity	: 41 %
Air Temperature	: 76° F
Test Fluid Conductivity	: 0.001
Main Flow	: 10 Gallons/min
Low Flow	: 10 Gallons/min
Contaminant Injection Rate	: 3 mg/Liter
Dwell Duration	: 90 seconds
Count Duration	: 30 seconds

Downstream Counts



Test # LN 90044 - 2 element Core single test sequence Summary of results

Contaminant Particle Size	Start of Test Particle Count	Test Completion Particle Count	Core Efficiency %
4 microns	14,823	219	98.5
5 microns	11,368	65	99.4
6 microns	9,538	35	99.6
10 microns	3,229	1	99.97
14 microns	1,368	0	100
20 microns	421	0	100
25 microns	180	0	100

Dynamic Filter Efficiency
Performance Test
In Conjunction With
Element Collapse/Burst Strength

Test # LN 900447 - 2 element Core test, two stage test sequence

Customer : Magnom Corporation
Contract Number : 32309
Filter Part Number : CAT 4T-6788
Test Number : LN090047

SSi Testing Laboratory
Fishers, IN

Date : 03/26/09
Operator : TAD

Test # LN 900447 - 2 element Core test, two stage test sequence

SSi Testing Laboratory

Section 2. Test Specifications

Customer : Magnom Corporation
Address : 910 W. VanBuren St. Chicago, Illinois 60607

Contact : Keith Day
Phone Number : (312) 738-1147

Test ID : LN090047
Operator : TAD

Contract Number : 32309
Test Fluid : Mil H 5606
Test Contaminant : MTD

Test # LN 900447 - 2 element Core test, two stage test sequence

Housing :

Part Number	: PFU-0600
Serial Number	: SPIN-ON
Return Housing	: Yes

Tests Performed :

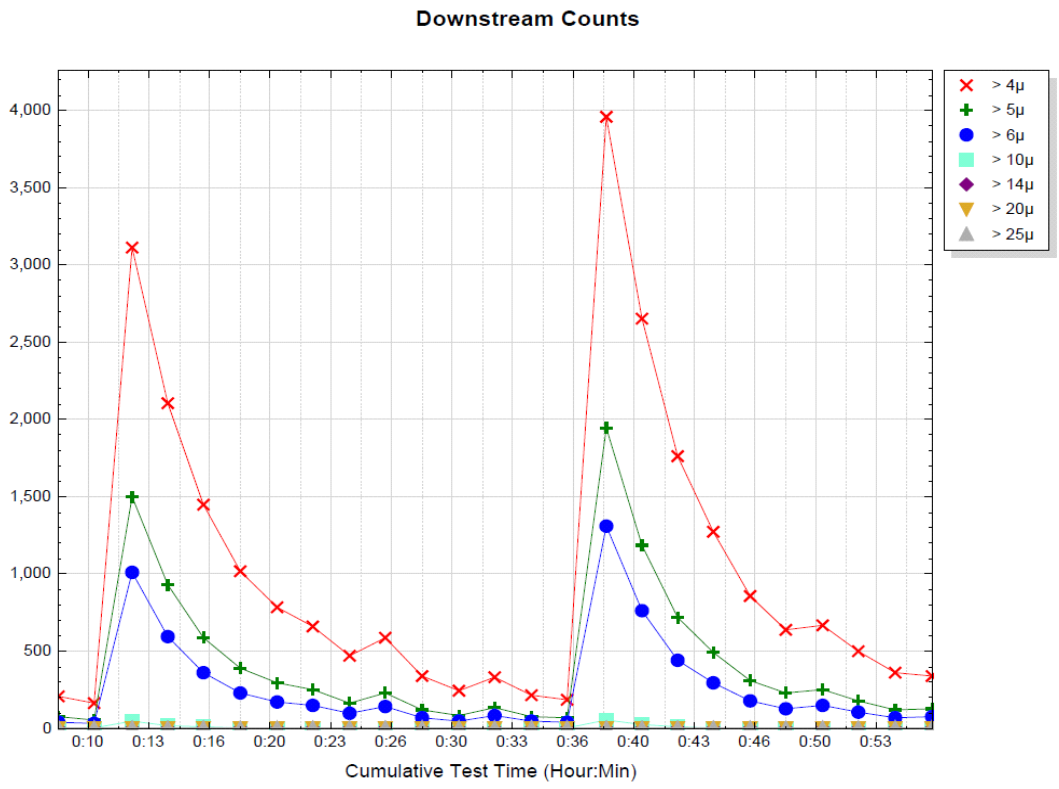
- Flow/Differential Pressure Test
- System Cleanliness
- Element Cleanliness
- Multi-Pass Dynamic Filter Efficiency (DFE) Test
- Contaminant Capacity Test
- Loss of Filtration Efficiency/Element Collapse/Burst Strength Test

Test Conditions :

Relative Humidity	: 39 %
Air Temperature	: 71° F
Test Fluid Conductivity	: 0.001
Main Flow	: 10 Gallons/min
Low Flow	: 10 Gallons/min
Contaminant Injection Rate	: 3 mg/Liter
Dwell Duration	: 90 seconds
Count Duration	: 30 seconds

Test # LN 900447 - 2 element Core test, two stage test sequence

SSi Testing Laboratory *LN090047*



Test # LN 90047 - 2 element Core two stage test sequence Summary of results, stage 1

Contaminant Particle Size	Start of Test Particle Count	Test Completion Particle Count	Core Efficiency %
4 microns	8,105	183	97.75
5 microns	5,558	66	98.8
6 microns	4,375	39	99.1
10 microns	1,242	1	99.92
14 microns	493	0	100
20 microns	149	0	100
25 microns	64	0	100

Test # LN 90047 - 2 element Core two stage test sequence Summary of results, stage 2

Contaminant Particle Size	Start of Test Particle Count	Test Completion Particle Count	Core Efficiency %
4 microns	10,511	341	96.75
5 microns	7,425	125	98.3
6 microns	5,926	74	98.75
10 microns	1,714	2	99.88
14 microns	671	0	100
20 microns	198	0	100
25 microns	82	0	100

Dynamic Filter Efficiency
Performance Test
In Conjunction With
Element Collapse/Burst Strength

Test # LN 900449 - 2 element Core test, two stage test sequence

Customer : Magnom Corporation
Contract Number : 32309
Filter Part Number : CAT 4T-6788
Test Number : LN090049

SSi Testing Laboratory
Fishers, IN

Date : 03/26/09
Operator : TAD

Test # LN 900449 - 2 element Core test, two stage test sequence

SSi Testing Laboratory

Section 2. Test Specifications

Customer : Magnom Corporation
Address : 910 W. VanBuren St. Chicago, Illinois 60607

Contact : Keith Day
Phone Number : (312) 738-1147

Test ID : LN090049
Operator : TAD

Contract Number : 32309
Test Fluid : Mil H 5606
Test Contaminant : MTD

Test # LN 900449 - 2 element Core test, two stage test sequence

Housing :

Part Number	: PFU-0600-RC
Serial Number	: SPIN-ON
Return Housing	: Yes

Tests Performed :

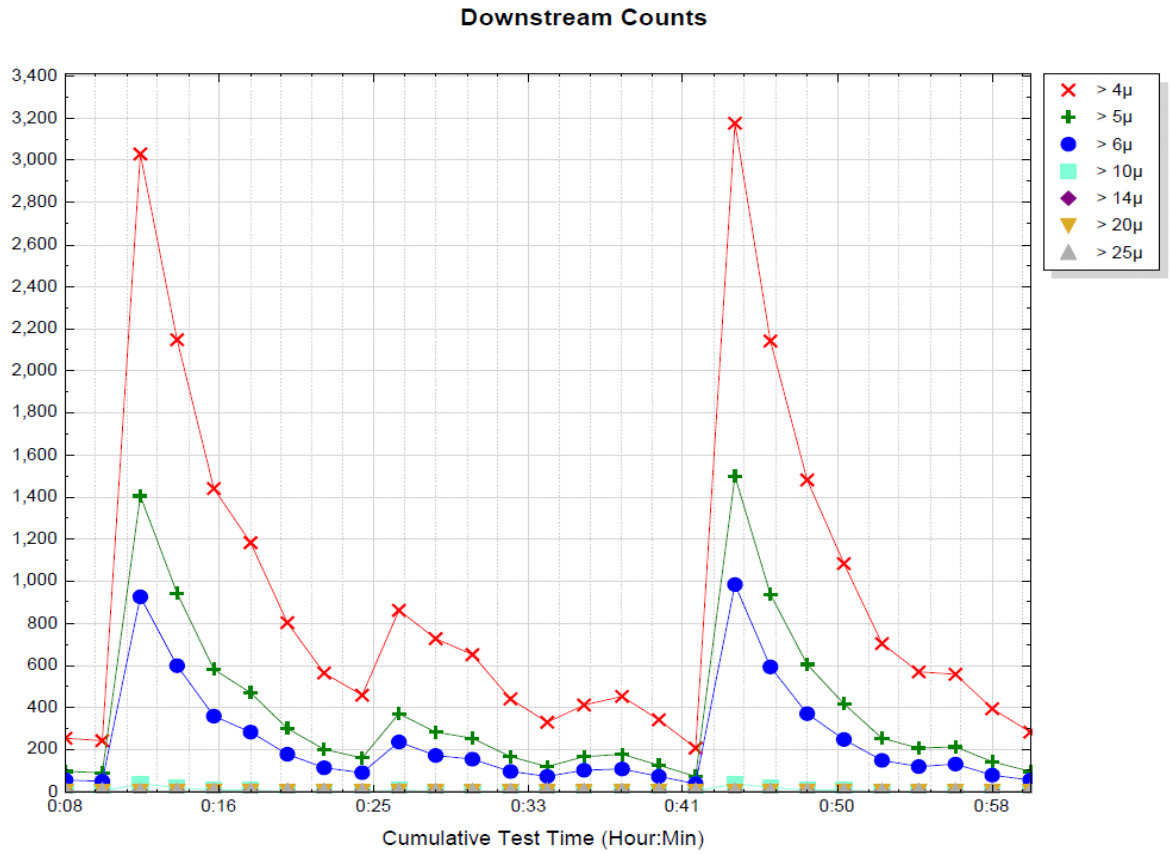
- Flow/Differential Pressure Test
- System Cleanliness
- Element Cleanliness
- Multi-Pass Dynamic Filter Efficiency (DFE) Test
- Contaminant Capacity Test
- Loss of Filtration Efficiency/Element Collapse/Burst Strength Test

Test Conditions :

Relative Humidity	: 39 %
Air Temperature	: 73° F
Test Fluid Conductivity	: 0.001
Main Flow	: 10 Gallons/min
Low Flow	: 10 Gallons/min
Contaminant Injection Rate	: 3 mg/Liter
Dwell Duration	: 90 seconds
Count Duration	: 30 seconds

Test # LN 900449 - 2 element Core test, two stage test sequence

SSi Testing Laboratory *LN090049*



Test # LN 90049 - 2 element Core two stage test sequence Summary of results, stage 1

Contaminant Particle Size	Start of Test Particle Count	Test Completion Particle Count	Core Efficiency %
4 microns	8,459	205	97.58
5 microns	5,723	72	98.75
6 microns	4,469	39	99.13
10 microns	1,216	1	99.93
14 microns	468	0	100
20 microns	139	0	100
25 microns	59	0	100

Test # LN 90049 - 2 element Core two stage test sequence Summary of results, stage 2

Contaminant Particle Size	Start of Test Particle Count	Test Completion Particle Count	Core Efficiency %
4 microns	9,521	281	97.1
5 microns	6,552	95	98.55
6 microns	5,152	53	98.98
10 microns	1,429	1	99.93
14 microns	560	0	100
20 microns	166	0	100
25 microns	68	0	100