

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

MAHLE FILTER SYSTEMS NORTH AMERICA, INC.

Petitioner

v.

INGEVITY SOUTH CAROLINA, LLC

Patent Owner

---

Case: To Be Assigned

Patent No.: RE38,844

---

**PETITION FOR *INTER PARTES* REVIEW OF  
U.S. PATENT RE38,844**

Mail Stop PATENT BOARD  
Patent Trial and Appeal Board  
U.S. Patent & Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

**TABLE OF CONTENTS**

I. Introduction. .... 1

II. Grounds for Standing (37 C.F.R. § 42.104(a)). .... 2

III. Identification of challenge (37 C.F.R. § 42.104(b)). .... 3

    A. Citation of prior art. .... 3

    B. Statutory grounds for the challenge..... 4

IV. The '844 patent. .... 5

    A. Technology Background..... 5

    B. The '844 patent purports to capture bleed emissions by adding a low-capacity adsorbent after a conventional adsorbent. .... 7

    C. The '844 patent's multi-stage approach was not new..... 9

    D. The '844 patent's self-created IAC metric does not impart patentability to the claims. .... 11

    E. Claim construction..... 13

    F. Level of ordinary skill in the art. .... 14

V. Ground 1: The combination of Meiller, Park, and AAPA renders the challenged claims (except claims 3-5, 7 and 19) obvious..... 14

    A. Overview of Meiller. .... 15

    B. Overview of Park..... 17

C.	The combination of Meiller, Park, and AAPA discloses the subject matter of independent claims 1, 18, 31, and 43.....	18
1.	The combination discloses the two-stage initial and subsequent adsorbent volumes.....	19
2.	The combination discloses the IAC of the initial volume.....	22
3.	The combination discloses the IAC of the subsequent volume.....	27
D.	Independent claim 1.....	41
E.	Independent claim 18.....	42
1.	Preamble.....	42
2.	Alleged “Improvement”.....	43
F.	Independent claim 31.....	44
1.	Preamble.....	44
2.	Alleged “Improvement”.....	50
G.	Independent claim 43.....	52
H.	Dependent claim 2.....	53
I.	Dependent claims 6, 20, 32, and 44.....	53
J.	Dependent claims 8, 21, 33, and 45.....	54
K.	Dependent claims 11, 24, 36, and 48.....	55
L.	Dependent claims 12, 25, 37, and 49.....	56
M.	Dependent claims 14, 27, 39, and 51.....	56

N.	Dependent claims 15, 28, 40, and 52.....	57
O.	Dependent claims 16, 29, 41, and 53.....	57
VI.	Ground 2: The combination of Abe, Park, and AAPA renders the challenged claims (except claims 3-5, 7 and 19) obvious.....	58
A.	Overview of Abe.....	58
B.	The combination of Abe, Park, and AAPA disclose the subject matter of independent claims 1, 18, 31, and 43.....	59
1.	The combination discloses the two-stage initial and subsequent adsorbent volumes.....	60
2.	The combination discloses the IAC of the initial volume.....	61
3.	The combination discloses the IAC of the subsequent volume. ....	63
C.	Independent claim 1.....	65
D.	Independent claim 18.....	66
1.	Preamble.....	66
2.	Alleged “Improvement” .....	67
E.	Independent claim 31.....	68
1.	Preamble.....	68
2.	Alleged “Improvement” .....	69
F.	Independent claim 43.....	69
G.	Claim 2.....	70

H.	Claims 6, 20, 32, and 44. ....	70
I.	Claims 8, 21, 33, and 45.....	71
J.	Claims 11, 24, 36, and 48.....	71
K.	Claims 12, 25, 37, and 49. ....	72
L.	Claims 14, 27, 39, and 51. ....	72
M.	Claims 15, 28, 40, and 52.....	73
N.	Claims 16, 29, 41, and 53.....	73
VII.	Ground 3: The combination of Meiller, Park, and Tennison renders claims 3-5, 7 and 19 obvious. ....	74
A.	Overview of Tennison.....	74
B.	Claims 4 and 19. ....	75
C.	Claim 3.....	78
D.	Claim 5.....	78
E.	Claim 7.....	80
VIII.	Objective indicia of non-obviousness do not overcome the strong evidence of obviousness against the '844 patent.....	80
IX.	Mandatory notices (37 C.F.R. § 42.8(a)(1)). ....	81
X.	Conclusion.....	83

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.