UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE PATENT TRIAL AND APPEAL BOARD

CONTROLS SOUTHEAST, INC.

Petitioner,

v.

QMAX INDUSTRIES, LLC

Patent Owner.

U.S. Patent No. 8,469,082

HEAT TRANSFER BETWEEN TRACER AND PIPE

PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,469,082



TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	MANDATORY NOTICES	1
A.	Real Party-In-Interest (37 C.F.R. § 42.8(b)(1))	1
B.	Related Matters (37 C.F.R. § 42.8(b)(2))	1
C.	Lead and Back-Up Counsel and Service Information (37 C.F.R. §§ 42.8(b)(3)-(4))	2
III.	INTER PARTES REVIEW FEE	2
IV.	CONTENT REQUIREMENTS	3
A.	Grounds for Standing (37 C.F.R. § 42.104(a))	3
B.	Identification of Challenge (37 C.F.R. § 42.104(b))	3
1.	Challenged Claims	3
2.	Summary of the Specific Statutory Grounds on Which the Challenge to Edim is Based	
3.	How the Challenged Claims Are To Be Construed	4
4.	How the Construed Claims Are Unpatentable	4
5.	Exhibit Numbers of Supporting Evidence and Relevance of Supporting Evidence to Challenge Raised	
IV.	OVERVIEW OF THE '082 PATENT	5
A.	Description of the Alleged Invention of the '082 Patent	5
B.	Summary of the Prosecution History of the '082 Patent	8
V.	CLAIM CONSTRUCTION	.11
A.	"a continuous heat transfer cement fill layer"	.11
VI.	LEVEL OF ORDINARY SKILL IN THE ART	.13
VII.	UNPATENTABILITY OF THE CHALLENGED CLAIMS	.13
A.	Ground 1 - Claims 1-9, 11, 12, and 18-20 are obvious under 35 U.S.C. § 103(a) over Malone in view of Bilbro	.14
1.	Claim 1	
2.	Claim 2	
3.	Claim 3	
4	Claim 4	32



5.	Claim 5	32
6.	Claim 6	34
7.	Claim 7	35
8.	Claim 8	36
9.	Claim 9	43
10.	Claim 11	43
11.	Claim 12	45
12.	Claim 18	46
13.	Claim 19	50
14.	Claim 20.	51
В.	Ground 2 - Claims 2-4 are obvious under 35 U.S.C. § 103(a) over Malone view of Bilbro and Mizuno.	
1.	Claim 2	52
2.	Claim 3	53
3.	Claim 4	54
C.	Ground 3 - Claims 1, 8, 11, 12, and 18-20 are obvious under 35 U.S.C. § 103(a) over Malone in view of Bilbro and Ikas	54
1.	Claim 1	56
2.	Claim 8	59
3.	Claim 11	61
4.	Claim 12	62
5.	Claim 18	63
6.	Claim 19	64
7.	Claim 20.	65
VIII.	CONCLUSION	66



List of Exhibits

Exhibit 1001: U.S. Patent No. 8,469,082 to Perry ("the '082 Patent")

Exhibit 1002: File History of the '082 Patent

Exhibit 1003: English Translation of Japanese Patent Publication No.

JP 2000-110985 to Mizuno et al. ("Mizuno")

Exhibit 1004: U.S. Patent No. 7,203,419 to Malone et al. ("Malone")

Exhibit 1005: U.S. Patent No. 3,331,946 to Bilbro ("Bilbro")

Exhibit 1006: Great Britain Patent No. 1,081,889 to Ikas Isolering ("Ikas")

Exhibit 1007: U.S. Patent No. 6,410,893 to Barth et al. ("Barth III")

Exhibit 1008: S.O. Jones, Electrically Traced Process Lines, *J. Electrical*

Engineering, December 1963 ("Jones")

Exhibit 1009: U.S. Patent No. 6,131,617 to Barth et al. ("Barth I")

Exhibit 1010: U.S. Patent No. 5,086,836 to Barth et. al ("Barth II")

Exhibit 1011: English Translation of JP S63-112696 to Omura ("Omura")

Exhibit 1012: PIP PNSC0035 Steam Tracing Specification ("PIP Spec")

Exhibit 1013: Dictionary definitions for "continuous" and "elliptical"

Exhibit 1014: Declaration of Dr. John P. Abraham ("Abraham Decl.")



I. INTRODUCTION

Pursuant to 35 U.S.C. § 311 *et seq.* and 37 C.F.R. § 42.1 *et seq.*, Petitioner Controls Southeast, Inc. ("Petitioner") hereby petitions for *inter partes* review of U.S. Patent No. 8,469,082 ("the '082 Patent"). Petitioner submits that claims 1-9, 11, 12, and 18-20 of the '082 Patent are unpatentable under 35 U.S.C. § 103 in view of the prior art references identified herein. This Petition demonstrates that there is a reasonable likelihood that each of the challenged claims is unpatentable. Accordingly, it is respectfully requested that the Board institute *inter partes* review of the '082 Patent.

II. MANDATORY NOTICES

A. Each Real Party-In-Interest (37 C.F.R. § 42.8(b)(1))

Controls Southeast, Inc. and AMETEK, Inc. Controls Southeast, Inc. is a wholly-owned division of AMETEK, Inc.

B. Related Matters (37 C.F.R. § 42.8(b)(2))

Petitioner is the plaintiff in an action against the Patent Owner involving the '082 Patent captioned *Controls Southeast, Inc. v. QMax Industries, Inc. et al.*, in the United States District Court for the Western District of North Carolina, Case No. 3:16-cv-00230-FDW-DSC (the "Lawsuit"). Concurrently filed herewith is a Petition for *inter partes* review of United States Patent No. 8,662,156 (the parent of the '082 Patent), which is also owned by Patent Owner and asserted in the above-captioned matter.



DOCKET

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.

