PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3478549

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
ICHOR SYSTEMS, INC.	08/11/2015

RECEIVING PARTY DATA

Name:	BANK OF AMERICA, N.A., AS ADMINISTRATIVE AGENT		
Street Address:	135 SOUTH LASALLE STREET		
Internal Address:	MAIL CODE: IL4-135-09-61		
City:	CHICAGO		
State/Country:	ILLINOIS		
Postal Code:	60604		

PROPERTY NUMBERS Total: 16

Property Type	Number
Patent Number:	6125887
Patent Number:	7334605
Patent Number:	7225835
Patent Number:	6076543
Patent Number:	6615870
Patent Number:	6659131
Patent Number:	5836355
Patent Number:	6302141
Patent Number:	6283155
Patent Number:	6374859
Patent Number:	6394138
Patent Number:	5992463
Patent Number:	6293310
Patent Number:	6474700
Patent Number:	6435215
Patent Number:	6769463

CORRESPONDENCE DATA

Fax Number: (212)294-4700

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

PATENT

503431924 REEL: 036300 FRAME: 0138

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 2122946635

Email: dkumar@winston.com

Correspondent Name: WINSTON & STRAWN LLP-BENJAMIN A. HUFFMAN

Address Line 1: 35 WEST WACKER DRIVE

Address Line 4: CHICAGO, ILLINOIS 60601-9703

ATTORNEY DOCKET NUMBER:	1740.291-ICHOR-SA TO BOA
NAME OF SUBMITTER:	BENJAMIN A. HUFFMAN
SIGNATURE:	/BENJAMIN A. HUFFMAN/
DATE SIGNED:	08/11/2015

Total Attachments: 5

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NOTICE OF GRANT OF SECURITY INTEREST IN PATENTS

United States Patent and Trademark Office

Ladies and Gentlemen:

Please be advised that pursuant to the Security and Pledge Agreement dated as of August 11, 2015 (as amended, modified, extended, restated, renewed, replaced, or supplemented from time to time, the "Agreement") by and among the Grantors party thereto (each an "Grantor" and collectively, the "Grantors") and Bank of America, N.A., as administrative agent (the "Administrative Agent") for the Secured Parties referenced therein, the undersigned Grantor has granted a continuing security interest in and continuing lien upon the United States and Canadian patents and patent applications shown on Schedule 1 attached hereto to the Administrative Agent for the ratable benefit of the Secured Parties.

The undersigned Grantor and the Administrative Agent, on behalf of the Secured Parties, hereby acknowledge and agree that the security interest in the foregoing patents and patent applications (a) may only be terminated in accordance with the terms of the Agreement and (b) is not to be construed as an assignment of any patent or patent application.

Very truly yours,

CHI:2940097.1

GRANTOR:

ICHOR SYSTEMS, INC.

Name: Maurice Carson

Title: Chief Financial Officer

Ichor - Patent Security Agreement

Acknowledged and Accepted:

BANK OF AMERICA, N.A., as Administrative Agent

By: <u>Christiae Letter</u>
Name: Christine Trotter

Title: Assistant Vice President

Ichor - Patent Security Agreement

Schedule 1

PATENTS

			Docket	US App.		US Patent		Expiry
Grantor	Status	Title	No.	<u>υν πρρ.</u> Νο.	Filing Date	No.	Issue Date	Date
Ichor Systems, Inc.	Granted	WELDED INTERCONNECTION MODULES FOR HIGH PURITY FLUID FLOW CONTROL APPLICATIONS	C1138- 700019	09/398302	20-Sep-1999	6125887	03-Oct-2000	20-Sep-2019
		MODULAR SUBSTRATE GAS PANEL HAVING MANIFOLD CONNECTIONS IN A COMMON	C1138-					
Ichor Systems, Inc.	Granted	PLANE	700110	10/650102	26-Aug-2003	7334605	26-Feb-2008	29-Apr-2024
Ichor Systems, Inc.	Granted	MODULAR SUBSTRATE GAS PANEL HAVING MANIFOLD CONNECTIONS IN A COMMON PLANE	C1138- 700140	11/232031	21-Sep-2005	7225835	05-Jun-2007	26-Aug-2023
Ichor Systems, Inc.	Granted	GAS HANDLING DEVICE	C1138- 702219	08/965077	06-Nov-1997	6076543	20-Jun-2000	06-Nov-2017
Ichor Systems, Inc.	Granted	SYSTEM AND METHOD FOR INTEGRATING GAS COMPONENTS	C2044- 700220	09/961595	24-Sep-2001	6615870	09-Sep-2003	03-Mar-2019
Ichor Systems, Inc.	Granted	SYSTEM AND METHOD FOR INTEGRATING GAS COMPONENTS	C2044- 700221	10/010372	05-Nov-2001	6659131	09-Dec-2003	03-Mar-2019
Ichor Systems, Inc.	Granted	BUILDING BLOCKS FOR INTEGRATED GAS PANEL	I0294- 7004	08/760150	03-Dec-1996	5836355	17-Nov-1998	03-Dec-2016
Ichor Systems, Inc.	Granted	BUILDING BLOCKS FOR INTEGRATED GAS PANEL	10294- 7006	08/931060	15-Sep-1997	6302141	16-Oct-2001	03-Dec-2016
Ichor Systems, Inc.	Granted	SYSTEM OF MODULAR SUBSTRATES FOR ENABLING THE DISTRIBUTION OF PROCESS FLUIDS THROUGH REMOVABLE COMPONENTS	I0294- 7008	09/456226	06-Dec-1999	6283155	04-Sep-2001	06-Dec-2019
Ichor Systems, Inc.	Granted	MANIFOLD SYSTEM FOR ENABLING A DISTRIBUTION OF FLUIDS	U0128- 7000	09/111999	08-Jul-1998	6374859	23-Apr-2002	30-Oct-2016
Ichor Systems, Inc.	Granted	MANIFOLD SYSTEM OF REMOVABLE COMPONENTS FOR DISTRIBUTION OF FLUIDS	U0128- 7001	09/229722	13-Jan-1999	6394138	28-May-2002	30-Oct-2016

Grantor	Status	<u>Title</u>	Docket No.	US App.	Filing Date	US Patent No	Issue Date	Expuy Date
Ichor Systems, Inc.	Granted	GAS PANEL	U0128- 7006	08/739,936	30-Oct-1996	5992463	30-Nov-1999	30-Oct-2016
Ichor Systems, Inc.	Granted	GAS PANEL	U0128- 7012	08/960464	29-Oct-1997	6293310	25-Sep-2001	30-Oct-2016
Ichor Systems, Inc.	Granted	GAS PANEL	U0128- 7019	09/732434	07-Dec-2000	6474700	05-Nov-2002	09-Feb-2017
Ichor Systems, Inc.	Granted	GAS PANEL	U0128- 7028	09/939487	23-Aug-2001	6435215	20-Aug-2002	30-Oct-2016
Ichor Systems, Inc.	Granted	FLUID FLOW SYSTEM	U0128- 7032	10/147427	16-May-2002	6769463	03-Aug-2004	25-Jun-2022

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RECORDED: 08/11/2015