

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
KENNETH C. CROUCH	12/20/2012
ROBERT W. TRACY	12/20/2012
RITA MOHANTY	01/03/2013
THOMAS J. KARLINSKI	01/07/2013
SCOTT A. REID	12/20/2012
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ILLINOIS TOOL WORKS INC.
<b>Street Address:</b>	155 HARLEM AVENUE
<b>City:</b>	GLENVIEW
<b>State/Country:</b>	ILLINOIS
<b>Postal Code:</b>	60025
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14537007
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(617)395-7070
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<b>Correspondent Name:</b>	LANDO & ANASTASI LLP
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<b>ATTORNEY DOCKET NUMBER:</b>	C2013-730940(23277-1B)
<b>NAME OF SUBMITTER:</b>	KEITH F. NOE
<b>SIGNATURE:</b>	/Keith F. Noe/
<b>DATE SIGNED:</b>	11/10/2014
<b>Total Attachments: 7</b>	
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**ASSIGNMENT**

For good and valuable consideration, the sufficiency and receipt of which is hereby acknowledged, we, the undersigned **Kenneth C. Crouch of North Andover, Massachusetts, Kui-Chiu Kwok of Bloomington, Minnesota, Illinois, Robert W. Tracy of Haverhill, Massachusetts, Rita Mohanty of East Greenwich, Rhode Island, Thomas J. Karlinski of Atkinson, New Hampshire and Scott A. Reid of Bradford, Massachusetts** hereby:

Sell, assign and transfer to **Illinois Tool Works Inc.**, a Delaware corporation having a place of business at **3600 West Lake Avenue, Glenview, Illinois 60026-1215**, its successors, assigns and legal representatives, all hereinafter referred to as said Assignee, the entire right, title and interest for the United States and all foreign countries, in and to any and all inventions which are disclosed in an application for Letters Patent filed in the United States Patent and Trademark Office on:

**October 30, 2012**

ENTER FILING DATE ABOVE

under Application Serial No. **13/663,942** and

entitled **MATERIAL DEPOSITION SYSTEM AND METHOD FOR DEPOSITING MATERIALS ON A SUBSTRATE**,

and in and to said application and all continuing, divisional, continuation-in-part, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on said any and all inventions, including an application filed on **April 17, 2012** under Application Serial No. **13/448,721** and entitled **MATERIAL DEPOSITION SYSTEM AND METHOD FOR DEPOSITING MATERIALS ON A SUBSTRATE**, which claims priority to an application filed on **June 29, 2011** under Application Serial No. **13/135,215** and entitled **PULSED AIR-ACTUATED MICRO-DROPLET ON DEMAND INK JET**, which claims priority to a provisional application filed on **August 25, 2010** under Application Serial No. **61/376,942** and entitled **PULSED AIR-ACTUATED MICRO-DROPLET ON DEMAND INK JET**; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said any and all inventions including the right to apply for patent rights in each foreign country and all rights to priority; and further including any right to sue for past infringement;

Appoint, authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting in the spaces provided above the filing date and serial number of said application when known;

Agree that said Assignee may apply for and receive Letters Patent for said any and all inventions in its own name; and when requested, without charge to but at the expense of said Assignee, we agree to carry out in good faith the intent and purpose of this assignment, by executing all divisional, continuing, substitute, renewal, reissue, and all other patent applications on said any and all inventions, by executing all rightful oaths, assignments, powers of attorney and other

papers, by communicating to said Assignee all facts known to us relating to said any and all inventions and the history thereof, and generally by doing everything reasonably possible which said Assignee shall consider desirable for aiding in securing and maintaining proper patent protection for said any and all inventions and for vesting title to said any and all inventions and all applications for patents and all patents on said inventions, in said Assignee;

Request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said Assignee; and

Covenant with said Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

Said Assignee does hereby acknowledge and accept the above sale, assignment and transfer of all the rights, title and interest enumerated above, including but not limited to the right to priority and the right to sue for past infringement.

12/20/2012  
Date

Kenneth C. Crouch  
Kenneth C. Crouch

STATE OF Massachusetts :  
COUNTY OF Norfolk :

On this 20 day of December, 2012, before me, the undersigned notary public, personally appeared Kenneth C. Crouch (name of document signer), proved to me through satisfactory evidence of identification, which were MA license, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(SEAL)

Erica J. Candela  
Printed name of Notary: Erica J. Candela

My commission expires: March 11, 2016

\_\_\_\_\_  
Date

\_\_\_\_\_  
Kui-Chiu Kwok

STATE OF \_\_\_\_\_:

COUNTY OF \_\_\_\_\_:

On this \_\_\_\_ day of \_\_\_\_\_, 2012, before me, the undersigned notary public, personally appeared \_\_\_\_\_ (name of document signer), proved to me through satisfactory evidence of identification, which were \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(SEAL)

\_\_\_\_\_  
Printed name of Notary: \_\_\_\_\_

My commission expires: \_\_\_\_\_

12/20/2012  
Date

Robert W. Tracy  
Robert W. Tracy

STATE OF Massachusetts:  
COUNTY OF Norfolk:

On this 20 day of December, 2012, before me, the undersigned notary public, personally appeared Robert W. Tracy (name of document signer), proved to me through satisfactory evidence of identification, which were MA License, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

Erica J. Candela

(SEAL)

Printed name of Notary: Erica J. Candela

My commission expires: March 11, 2016

1/3/13  
Date

Rita Mohanty  
Rita Mohanty

STATE OF Connecticut:

COUNTY OF New Haven:

On this 3rd day of January, 2013, before me, the undersigned notary public, personally appeared Rita Mohanty (name of document signer), proved to me through satisfactory evidence of identification, which were personally known, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

(SEAL)

K. Brin  
Printed name of Notary: Kristen Brin

My commission expires: November 30, 2013

1-7-2013  
Date

Thomas J. Karlinski  
Thomas J. Karlinski

STATE OF Massachusetts :

COUNTY OF Norfolk :

On this 7<sup>th</sup> day of January, 2013, before me, the undersigned notary public, personally appeared Thomas J. Karlinski (name of document signer), proved to me through satisfactory evidence of identification, which were New Hampshire drivers license to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

Judith C. Soares

(SEAL)

Printed name of Notary: JUDITH C. SOARES

My commission expires: March 11, 2016



12/20/12  
Date

Scott A. Reid  
Scott A. Reid

STATE OF Massachusetts:  
COUNTY OF Norfolk:

On this 20 day of December, 2012, before me, the undersigned notary public, personally appeared Scott A. Reid (name of document signer), proved to me through satisfactory evidence of identification, which were MA License, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

Enca J. Candela  
(SEAL) Printed name of Notary: Enca J. Candela  
My commission expires: March 11, 2016