

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
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EPAS ID: PAT4360001

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
DAVE DOYLE FERGUSON JR	01/06/2017
EMANUELE RONCHI	01/06/2017
CARL ROBERT TIPTON	01/09/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	JOHNSON MATTHEY PUBLIC LIMITED COMPANY
<b>Street Address:</b>	5TH FLOOR, 25 FARRINGDON STREET
<b>City:</b>	LONDON
<b>State/Country:</b>	UNITED KINGDOM
<b>Postal Code:</b>	EC4A 4AB
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15324170
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(703)685-0573
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	7035212297
<b>Email:</b>	lconley@young-thompson.com
<b>Correspondent Name:</b>	YOUNG & THOMPSON
<b>Address Line 1:</b>	209 MADISON STREET
<b>Address Line 2:</b>	SUITE 500
<b>Address Line 4:</b>	ALEXANDRIA, VIRGINIA 22314
<b>ATTORNEY DOCKET NUMBER:</b>	3205-1169
<b>NAME OF SUBMITTER:</b>	ERIC JENSEN
<b>SIGNATURE:</b>	/Eric Jensen/
<b>DATE SIGNED:</b>	04/10/2017
This document serves as an Oath/Declaration (37 CFR 1.63).	
<b>Total Attachments: 3</b>	
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**ASSIGNMENT AND INVENTOR'S DECLARATION**

WHEREAS I/we, the undersigned inventor(s), hereafter also referred to as "assignor(s)", have invented certain new and useful improvements described in the application identified below; and

WHEREAS, JOHNSON MATTHEY PUBLIC LIMITED COMPANY, hereinafter referred to as "assignee(s)", whose address is 5<sup>th</sup> Floor, 25 Farringdon Street, London, EC4A 4AB, United Kingdom, is desirous of acquiring the entire right, title and interest in and to the application and invention, and to any United States patents to be obtained therefor;

NOW, THEREFORE, for valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we, the above-named assignor(s), hereby sell, assign and transfer to the above named assignee(s), its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including all divisions, and continuations thereof, and all Letters Patent of the United States that may be granted thereon, and all reissues thereof, including any right to bring or maintain an action for infringement under the provisional rights granted pursuant to Title 35, Section 154 of the United States Code or any other cause of action for acts which would constitute infringement occurring prior to this assignment, and including the right to claim priority under the International Convention of Paris (1883), as amended, of or in any corresponding foreign patent application, and I/we request the Director of the U.S. Patent and Trademark Office to issue any Letters Patent granted upon the invention set forth in the application to the assignee(s), its successors and assigns.

As a below named inventor, I hereby declare that:

This assignment and declaration is directed to:  The attached application, or  United States Application or PCT International Application Number 15/324170 filed on 5<sup>th</sup> January 2017 (Confirmation No. 1030).

The application is entitled: **Apparatus for determining thickness of lining layer**

The above-identified application was made or was authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this assignment with declaration is punishable under 18 USC 1001 by fine or imprisonment of not more than five (5) years, or both.

Given Name(s)	Dave Doyle	Family Name/Surname(s)	FERGUSON JR
Inventor's Signature:	<i>D Ferguson</i>	Date	6 Jan 2017
Given Name(s)	Emanuele	Family Name/Surname(s)	RONCHI
Inventor's Signature:		Date	
Given Name(s)	Carl Robert	Family Name/Surname(s)	TIPTON
Inventor's Signature:		Date	
Given Name(s)		Family Name/Surname(s)	
Inventor's Signature:		Date	

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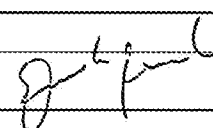
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Inventor's Signature:		Date	
Given Name(s)	Emanuele	Family Name/Surname(s)	RONCHI
Inventor's Signature:		Date	06 Jan 2017
Given Name(s)	Carl Robert	Family Name/Surname(s)	TIPTON
Inventor's Signature:		Date	
Given Name(s)		Family Name/Surname(s)	
Inventor's Signature:		Date	

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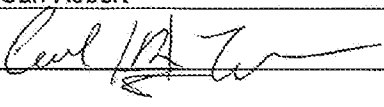
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Inventor's Signature:		Date	
Given Name(s)	Emanuele	Family Name/Surname(s)	RONCHI
Inventor's Signature:		Date	
Given Name(s)	Carl Robert	Family Name/Surname(s)	TIPTON
Inventor's Signature:		Date	9/1/17
Given Name(s)		Family Name/Surname(s)	
Inventor's Signature:		Date	

PATENT