

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT3043198

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
MFRI, INC.	09/24/2014
MIDWESCO FILTER RESOURCES, INC.	09/24/2014
PERMA-PIPE, INC.	09/24/2014
TC NILES CORPORATION	09/24/2014
TDC FILTER MANUFACTURING, INC.	09/24/2014
MM NILES CORPORATION	09/24/2014
PERMA-PIPE CANADA, INC.	09/24/2014

RECEIVING PARTY DATA

Name:	BMO HARRIS BANK N.A.
Street Address:	111 WEST MONROE
City:	CHICAGO
State/Country:	ILLINOIS
Postal Code:	60603

PROPERTY NUMBERS Total: 6

Property Type	Number
Patent Number:	8049638
Patent Number:	7525444
Patent Number:	7824595
PCT Number:	US2009454488
Application Number:	13523440
Application Number:	62036352

CORRESPONDENCE DATA

Fax Number: (214)932-6499

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.

Phone: 214-932-6400

Email: sshernandez@mcguirewoods.com

Correspondent Name: NAM H. HUYNH

Address Line 1: 2000 MCKINNEY AVENUE, SUITE 1400

Address Line 4: DALLAS, TEXAS 75201

PATENT

ATTORNEY DOCKET NUMBER:	2062480-0019
NAME OF SUBMITTER:	NAM H. HUYNH
SIGNATURE:	/Nam H. Huynh/
DATE SIGNED:	09/29/2014
Total Attachments: 5 source=Patent Security Agreement#page1.tif source=Patent Security Agreement#page2.tif source=Patent Security Agreement#page3.tif source=Patent Security Agreement#page4.tif source=Patent Security Agreement#page5.tif	

PATENT SECURITY AGREEMENT

This Patent Security Agreement (this “Patent Security Agreement”) is made as of September 24, 2014, by MFRI, INC., a Delaware corporation (“MFRI”), MIDWESCO FILTER RESOURCES, INC., a Delaware corporation (“Midwesco”), PERMA-PIPE, INC., a Delaware corporation (“Perma-Pipe”), TC NILES CORPORATION, a Delaware corporation (“TC Niles”), TDC FILTER MANUFACTURING, INC., a Delaware corporation (“TDC”), MM NILES CORPORATION, a Delaware corporation (“MM Niles”), and PERMA-PIPE CANADA, INC., a Delaware corporation (“Perma-Pipe Canada”; each of MFRI, Midwesco, Perma-Pipe, TC Niles, TDC, MM Niles, and Perma-Pipe Canada may be referred to herein individually and collectively, as the “Grantor”), in favor of BMO HARRIS BANK N.A., in its capacity as Lender (together with its successors and assigns in such capacity, the “Grantee”).

WHEREAS, the Grantor holds all right, title and interest in the letter patents, design patents and utility patents listed on the attached Schedule A, which patents are issued or applied for in the United States Patent and Trademark Office or the appropriate international office, as applicable (the “Patents”);

WHEREAS, the Grantor and Grantee have entered into a Credit and Security Agreement, dated as of the date hereof (as amended, restated, supplemented, modified or otherwise changed from time to time, the “Credit and Security Agreement”); and

WHEREAS, pursuant to the Credit and Security Agreement, the Grantor has granted to the Grantee a continuing security interest in all right, title and interest of the Grantor in, to and under the Patents and the applications and registrations thereof, and all proceeds thereof, including, without limitation, any and all causes of action which may exist by reason of infringement thereof and any and all damages arising from past, present and future violations thereof (the “Collateral”), to secure the payment, performance and observance of the Obligations (as defined in the Credit and Security Agreement).

NOW, THEREFORE, as collateral security for the payment, performance and observance of all of the Obligations, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Grantor does hereby grant to the Grantee and grant to the Grantee, a continuing security interest in the Collateral to secure the prompt payment, performance and observance of the Obligations.

All capitalized terms used but not otherwise defined herein have the meanings given to them in the Credit and Security Agreement.

The Grantor does hereby further acknowledge and affirm that the rights and remedies of the Grantee with respect to the Collateral are more fully set forth in the Credit and Security Agreement, the terms and provisions of which are hereby incorporated herein by reference as if fully set forth herein.

This Patent Security Agreement may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. Delivery of an executed counterpart by facsimile or electronic mail shall be equally effective as delivery of an original executed counterpart.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the Grantor has caused this Patent Security Agreement to be duly executed by its officer thereunto duly authorized as of the date first set forth above.

GRANTOR:

MFRI, INC.

By: 

Karl J. Schmidt
Vice President and Chief Financial Officer

MIDWESCO FILTER RESOURCES, INC.

By: 

Karl J. Schmidt
Vice President, Treasurer and Chief Financial Officer

PERMA-PIPE, INC.

By: 

Karl J. Schmidt
Vice President, Treasurer and Chief Financial Officer

TC NILES CORPORATION

By: 

Karl J. Schmidt
Vice President, Treasurer and Chief Financial Officer

TDC FILTER MANUFACTURING, INC.

By: 

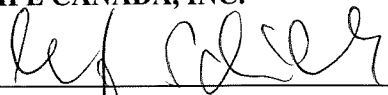
Karl J. Schmidt
Vice President, Treasurer and Chief Financial Officer

MM NILES CORPORATION

By: 

Karl J. Schmidt
Vice President, Treasurer and Chief Financial Officer

PERMA-PIPE CANADA, INC.

By: 

Karl J. Schmidt

Vice President, Treasurer and Chief Financial Officer

SCHEDULE A TO GRANT OF A SECURITY INTEREST

Patents and Patent Applications

DOMESTIC PATENTS

Patent	Owner	Status	Registration Number	Registration Date
Sensor for Detecting Hydrocarbons	Perma-Pipe Inc.	Issued	8,049,638	11/1/2011
Sensor for Detecting Hydrocarbons	Perma-Pipe Inc.	Issued	7,525,444	4/28/2009
Method and System for Cast Molding a Fluid Conduit	Perma-Pipe Inc.	Issued	7,824,595 B2	11/2/2010
Shear Increasing System	Perma-Pipe Inc.	Filed	PCT/US09/454488	
Pre-Insulated Piping System	Perma-Pipe Inc.	Filed	13523440	
Insulated and Heat Traced Pipe Assembly End Sealing Process	Perma-Pipe Inc.	Filed	62/036,352	

INTERNATIONAL PATENTS

Patent	Country	Owner	Status	Registration Number	Registration Date
Method and System for Cast Molding a Fluid Conduit	Canada	Perma-Pipe Inc.	Issued	2,577,296	8/2/2011
Pre-Insulated Piping System	Canada	Perma-Pipe Inc.	Filed	2,803,198	
Shear Increasing System	GCC	Perma-Pipe Inc.	Filed	2009/13594	
Pre-Insulated Piping System	India	Perma-Pipe Inc.	Filed	116/DEL/2013	
Shear Increasing System	India	Perma-Pipe Inc.	Filed	6469/DELNP/2010	