

# INSIDER

*We welcome all our  
new employees!*

## NEW EMPLOYEES - CASTOOL

Brian Francis  
*Machinist*

Johnson Kidangethu Kurian  
*Panel Builder*

Stephen Imeson  
*Gun Drill Operator*

Sharif Haidair  
*General Labour Manufacturing*

Fahmi Saeed  
*Equipment Technician*

Mahmood Khan  
*Machinist*

Samantha Robbins  
*Purchasing Assistant*

Keaton Oldham  
*Cleaner*

Michael Williams  
*Outside Sales*

Kevin Laverty  
*Machinist*

Justin Parks  
*Welder*

## NEW EMPLOYEES - CASTOOL 180

Ms. Pimpaporn Kritsanasakul (Jea)  
*Purchasing & BOI / Import*

**CASTOOL & CASTOOL 180  
ARE FULLY CERTIFIED**  
by Intertek Systems Certification:



*Happy New Year to everyone at Castool and to  
our customers and suppliers around the world!*

## OUTCOME-CENTRIC

Outcome-centric companies must know the industries and customers they serve well enough to understand what specific outcomes are possible. A strong relationship between sales and customers is required. The sales team must work across the organization, especially in areas such as design, production, pricing and after-sales support.

Becoming outcome-centric requires product development to focus on delivering products as a service to enable real-time service level monitoring. This way, engineers and product designers no longer have to make educated guesses about how their products perform in the field, because they can collect actual performance data instead.

A common challenge in industrial manufacturing is where customer feedback on product usage fails to make it back from the sales team and other customer-facing staff. Product performance data helps inform future improvements. But just as important, it tends to compress the new product development cycle. Industrial manufacturers may soon have to compete like technology companies, racing to beat the competition to get the next-generation product out the door.

After-sales support and customer service are also affected as they increasingly focus on predictive interventions. To deliver outcomes, customer service teams must be tightly integrated with the commercial organization, so they can anticipate customer issues and proactively offer solutions.

Basically, the more we know about our customers the better. Technology has made it possible to gather and analyze multiple streams of real-time customer data – information that can be shared within the organization to identify and recommend improvements.

Without an outcome-centric mindset and operational model, companies risk falling behind. It involves a foundational shift in organization and culture.

## Castool welcomes GLENN TITMUSS to the international sales team



Sales Coordinator Asia

Glenn has long and varied experiences in the aluminium extrusion business.

He began his career in 1984 with Alcan Australia as a metallurgist before specialising in extrusion in 1987 as a plant metallurgist, process engineer and working in tooling design.

In 1992, Glenn worked in R&D at Alcan in Kingston, Ontario under Mike Johannes and Chris Jowett. He returned to Australia in 1993 as a divisional metallurgist before taking on contract roles locally and abroad in Asia, in process improvement and process engineering projects.

In 2000, he was a research engineer for Norsk Hydro at their R&D hub in France, running projects in their plants in Germany, Norway, Spain and Belgium. In 2003, Glenn held Group Technical Manager roles in aluminium extrusion and brass and copper extrusion businesses before managing a Die Shop in Sydney which was part of the Phoenix Tooling Group based in Italy.

More recently, he has worked as a teacher of Engineering and Science, and continues to work on extrusion projects.

Glenn is pleased to be joining the team at Castool, recognizing that the company is about development and improvement of technologies that keep Castool and their customers as leaders in the industry.

See page 13 for a complete list of the Castool International Sales Team

## PRODUCTION



John Cullum  
Operations Manager



Steve Boyce  
Production Manager

Castool is busy preparing to expand the Uxbridge and Thailand facilities, and potentially a new heat-treat facility and a plant in Europe.

To meet these challenges, John is focusing on Equipment, Facilities and Quality, and Steve is focusing on production in Uxbridge. Their skills compliment each other.

## CUSTOMER SERVICE – putting a face to the name...



From left to right:

**Jean Dembowski, Commercial Manager** [jean.dembowski@castool.com](mailto:jean.dembowski@castool.com)

Jean has a diploma in Graphic Arts and is a mother of 2. She enjoys art, painting and yoga.

**Sue Su, Extrusion & Die Casting** [sue-biliu.su@castool.com](mailto:sue-biliu.su@castool.com)

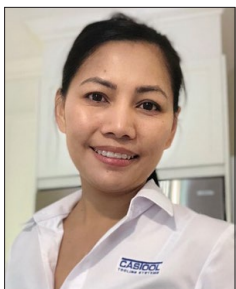
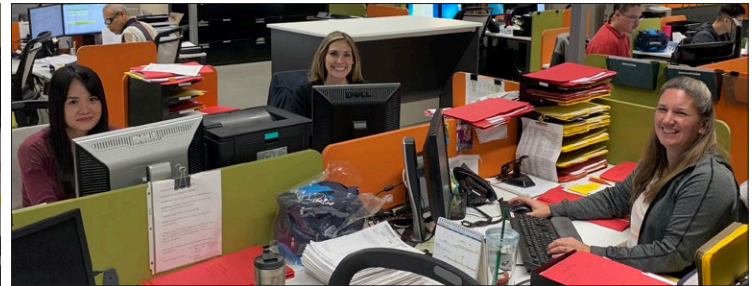
Sue is a busy mom with two girls, aged 10 and 7, who are involved in skating and piano. Sue indulges in her favourite passtime – shopping – whenever she can.

**Christine Kaschuba, Die Casting** [christine.kaschuba@castool.com](mailto:christine.kaschuba@castool.com)

Christine has a busy life outside of Castool with 2 boys and a girl ranging in age from 8 to 5. It's no wonder that she enjoys the peace of yoga as often as possible.

**Sue Lotton, Extrusion** [sue.lotton@castool.com](mailto:sue.lotton@castool.com)

Sue is busy raising 2 boys aged 10 and 13 who are very active in hockey, soccer and basically, all sports. She is the quintessential “hockey mom”!



From left to right:

**Sireerus Robbins (Ploy), Marketing Director** [ploy.robbs@castool.com](mailto:ploy.robbs@castool.com)

Ploy has a Masters Degree in Administration and joined Castool 180 as a Customer Service Supervisor. She moved to Castool Canada as Marketing Director in 2018. She is busy raising a 3-yr old and loves to cook.

**Tanmanun Tiantip (Gee), Commercial Supervisor** [gee@castool.com](mailto:gee@castool.com)

Gee has a degree in Hotel Management, and enjoys reading, meditation and writing. He prefers the mountains for sightseeing, and loves to grow any kind of plants.

**Phudis Phollawan (Danny), Extrusion & Die Casting** [phudis.phollawan@castool.com](mailto:phudis.phollawan@castool.com)

Danny has a degree in Public Administration. He loves to visit the temple and enjoys watching motorbike racing, painting and listening to house music.



# HELP PROTECT OUR PATENTS

This is a summary of what to check for when identifying products or technologies that possibly overlap with CASTOOL patents.

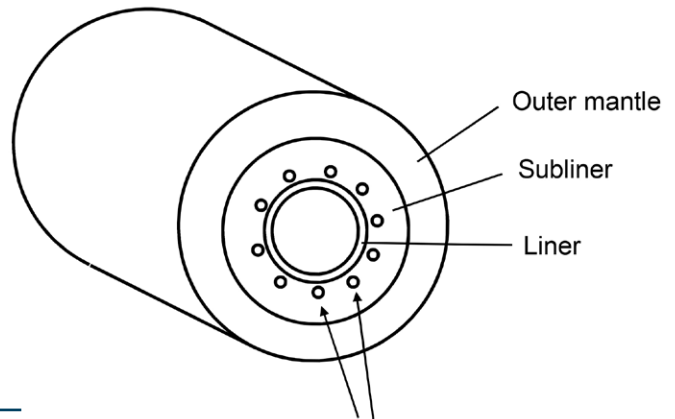
If you see any product or technology that has ALL of the features identified by a checkmark, please contact Paul Robbins:

## QR CONTAINER

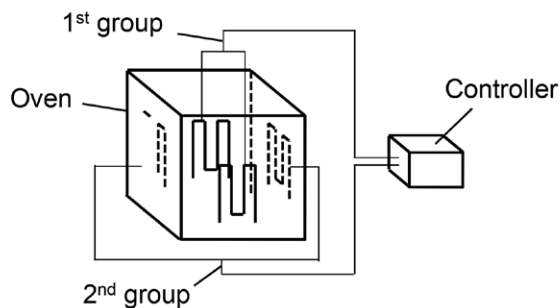
WHAT WE ARE LOOKING FOR:

ANY Metal Extrusion Press Container having:

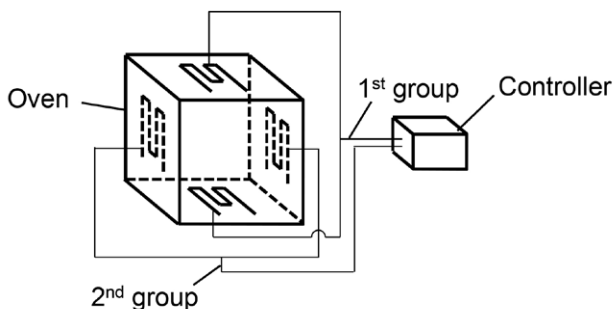
- Outer mantle
- Subliner
- Liner accommodated inside of subliner and having passage for receiving billet; and
- Longitudinal heating elements in subliner in close proximity to liner



Longitudinal heating elements in subliner "in close proximity" to liner



OR

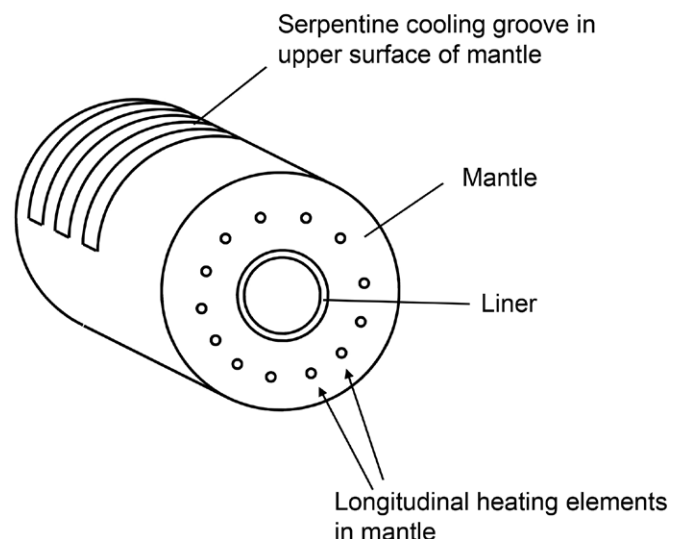


## 4-SIDED DIE OVEN

WHAT WE ARE LOOKING FOR:

ANY Extrusion Die Pre-heating Device having:

- Oven, with
  - 1<sup>st</sup> group of heating elements on 1<sup>st</sup> pair opposing walls
  - 2<sup>nd</sup> group of heating elements on 2<sup>nd</sup> pair opposing walls
- Controller for operating the groups of heating elements independently



## AIR-COOLED CONTAINER

WHAT WE ARE LOOKING FOR:

ANY Metal Extrusion Press Container having:

- Outer mantle
- Liner having passage for receiving billet
- Longitudinal heating elements in mantle
- Serpentine cooling groove in upper surface of mantle

# HELP PROTECT OUR PATENTS (con't)

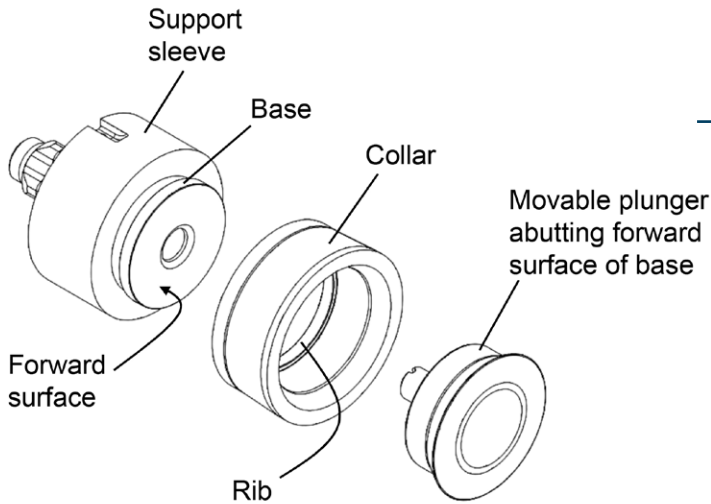
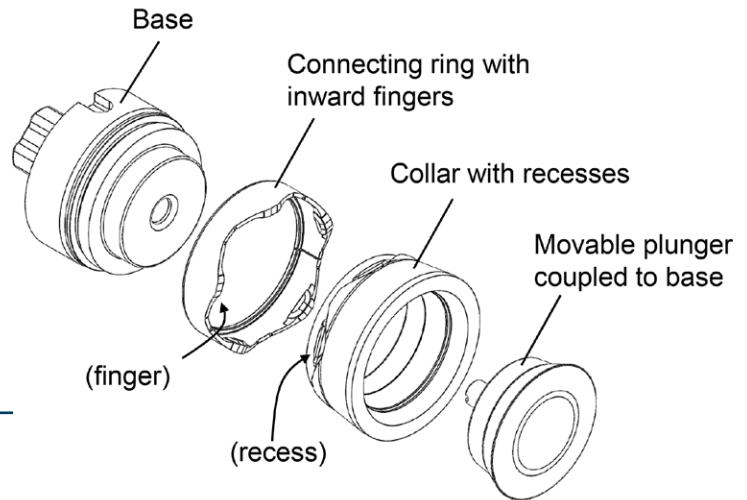
If you see any product or technology that has ALL of the features identified by a checkmark, please contact Paul Robbins:

## DUMMY BLOCK

WHAT WE ARE LOOKING FOR:

ANY Dummy Block for a Metal Extrusion Press having:

- Base having forward surface
- Collar having inner rib coupled to base
- Support sleeve mounted to base and abutting collar
- Movable plunger abutting forward surface of base



## DUMMY BLOCK

WHAT WE ARE LOOKING FOR:

ANY Dummy Block for a Metal Extrusion Press having:

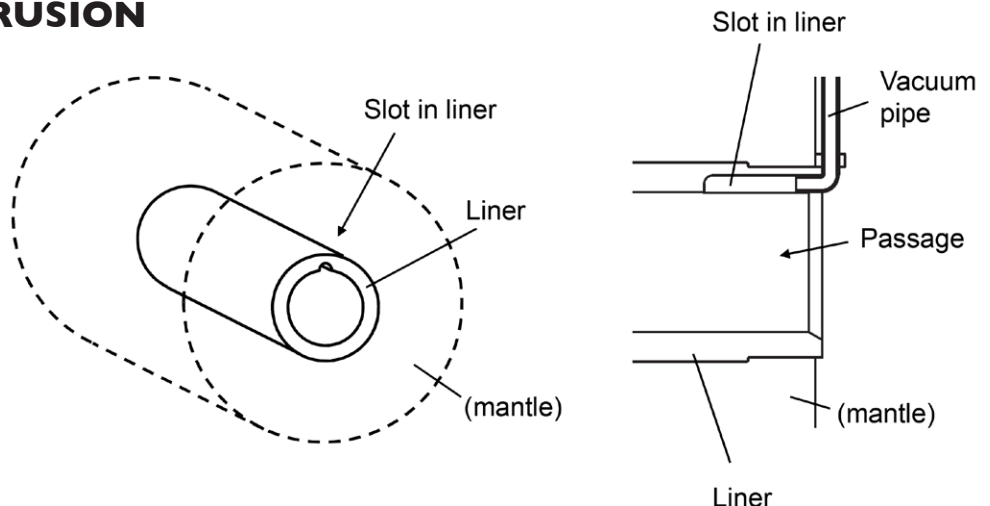
- Base
- Collar having outer recesses
- Movable plunger coupled to base
- Connecting ring coupling collar to base, with inward fingers engaging recesses on collar

## VACUUM ASSISTED EXTRUSION

WHAT WE ARE LOOKING FOR:

ANY Liner for a Metal Extrusion Press Container having:

- Passage for receiving billet
- Slot adjoining the passage for receiving a vacuum pipe



# HELP PROTECT OUR PATENTS (con't)

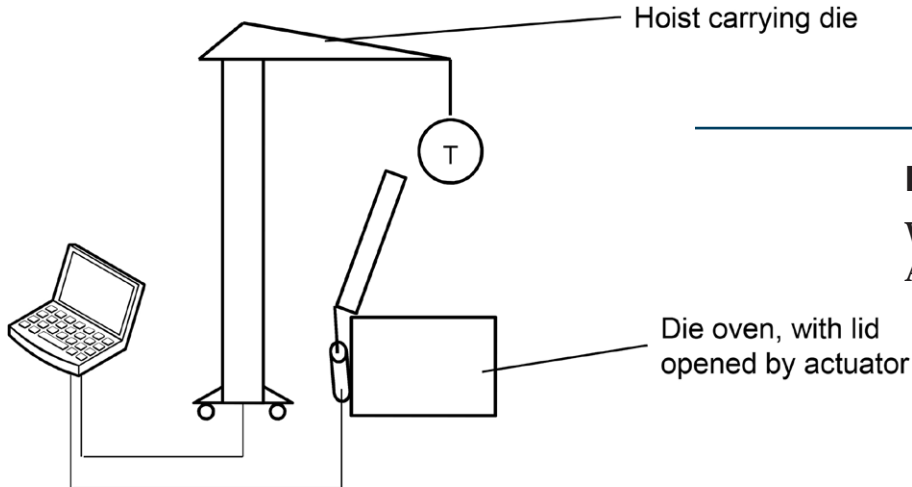
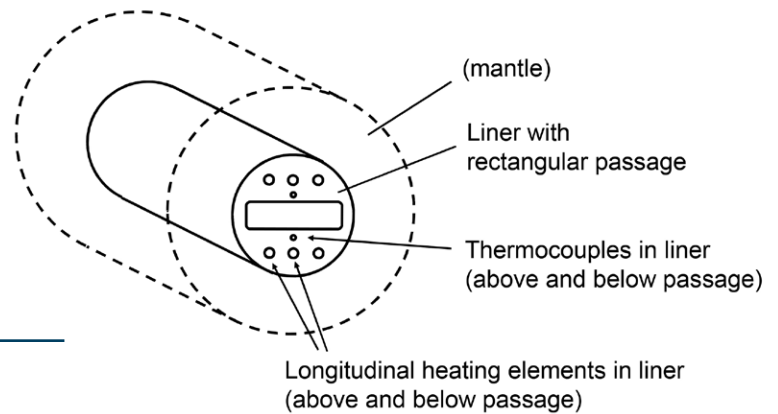
If you see any product or technology that has ALL of the features identified by a checkmark, please contact Paul Robbins:

## RECTANGULAR LINER

WHAT WE ARE LOOKING FOR:

ANY Liner for a Metal Extrusion Container having:

- Rectangular passage
- Heating elements above and below passage
- Thermocouples above and below passage



Processor for controlling hoist and lid actuator

## DIE PRE-HEATING SYSTEM

WHAT WE ARE LOOKING FOR:

ANY Die Pre-heating System having:

- One or more die ovens
- Robotic hoist
- Processor for controlling
  - the hoist
  - the lid actuator of the die oven(s)

## TOOL STEEL COMPOSITION (TUFF-TEMPER)

WHAT WE ARE LOOKING FOR:

ANY Tool Steel Composition used in either:

- A Die Casting apparatus or
- A Metal Extrusion Press, having the composition (wt %):

$0.35\% < C < 0.40\%$

$0.32\% < Si < 0.50\%$

$4.50\% < Cr < 5.50\%$

$3.75\% < Mo < 4.75\%$

$0.80\% < V < 1.00\%$

# HELP PROTECT OUR PATENTS (con't)

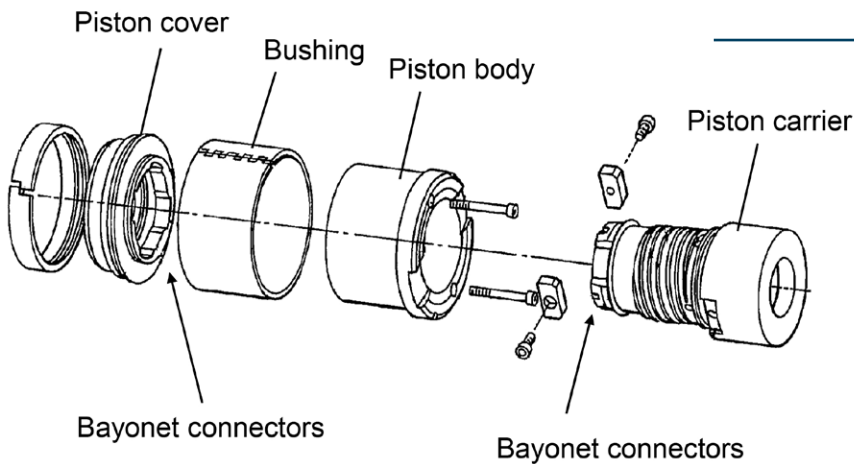
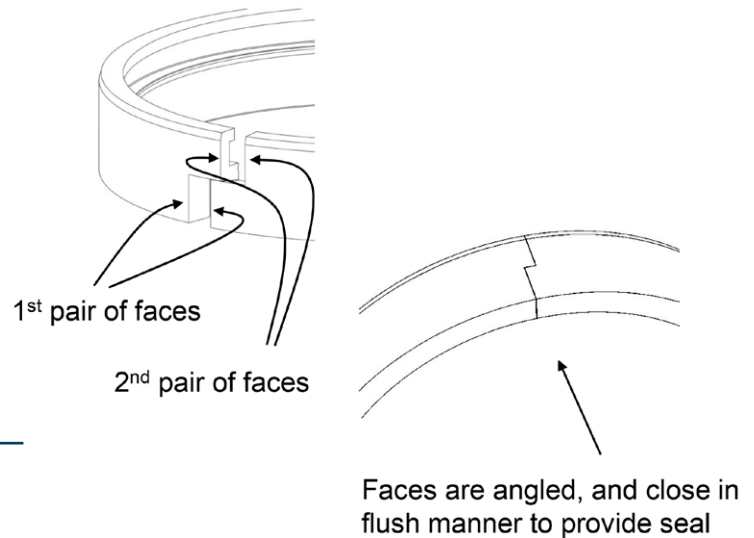
If you see any product or technology that has ALL of the features identified by a checkmark, please contact Paul Robbins:

## WEAR RING FOR DIE CASTING PISTON

WHAT WE ARE LOOKING FOR:

ANY Wear Ring for a Die Casting Piston having:

- Ring-shaped body with cut having 2 pairs of opposing faces
- Opposing faces are angled to allow faces to contact each other in flush manner when ring is compressed



## ALLPER PISTON

WHAT WE ARE LOOKING FOR:

ANY Die Casting Piston having:

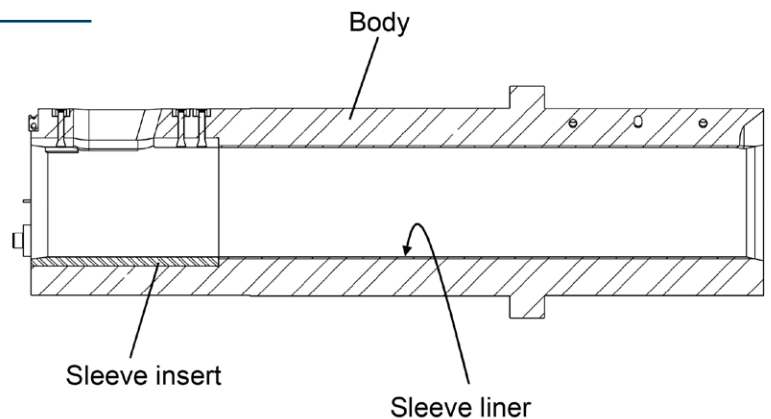
- Piston cover
- Piston body supporting bushing
- Piston carrier
- Bayonet connectors on piston cover and on piston carrier

## SHOT SLEEVE WITH LINER

WHAT WE ARE LOOKING FOR:

ANY Die Casting Shot Sleeve having:

- Body having an axial bore
- Sleeve liner formed on bore surface
- Sleeve insert abutting the liner



# HELP PROTECT OUR PATENTS (con't)

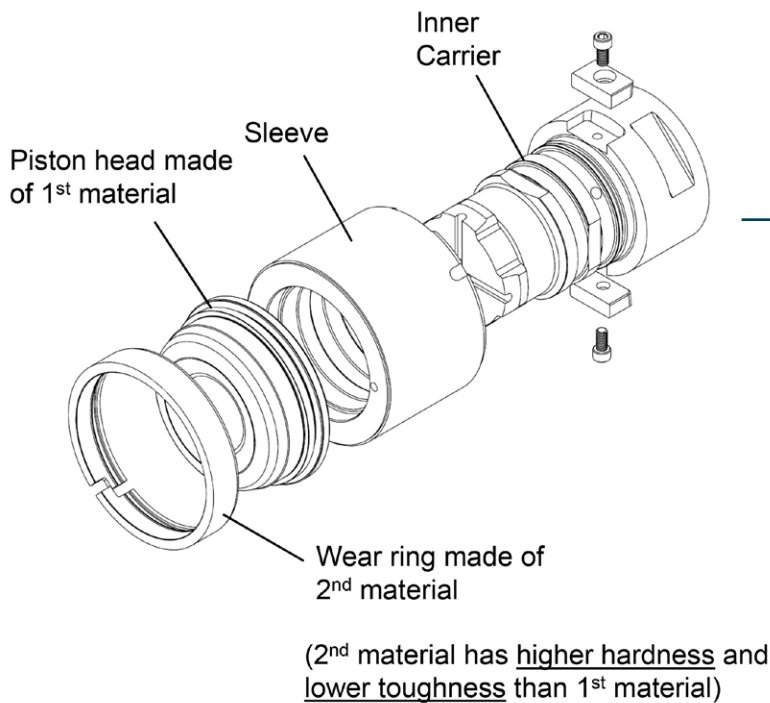
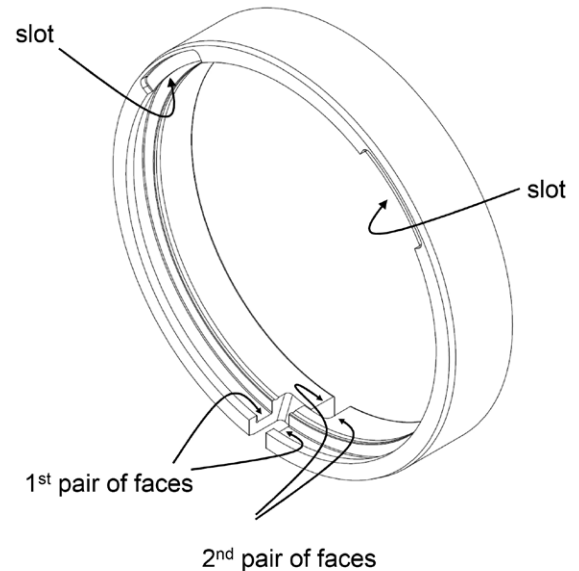
If you see any product or technology that has ALL of the features identified by a checkmark, please contact Paul Robbins:

## IMPROVED WEAR RING WITH SLOTS

WHAT WE ARE LOOKING FOR:

ANY Wear Ring for a Die Casting Piston having:

- Ring-shaped body with cut having 2 pairs of opposing faces
- One or more slots on face of body



## DIE CASTING PISTON WITH IMPROVED TOUGHNESS

WHAT WE ARE LOOKING FOR:

ANY Die Casting Piston having:

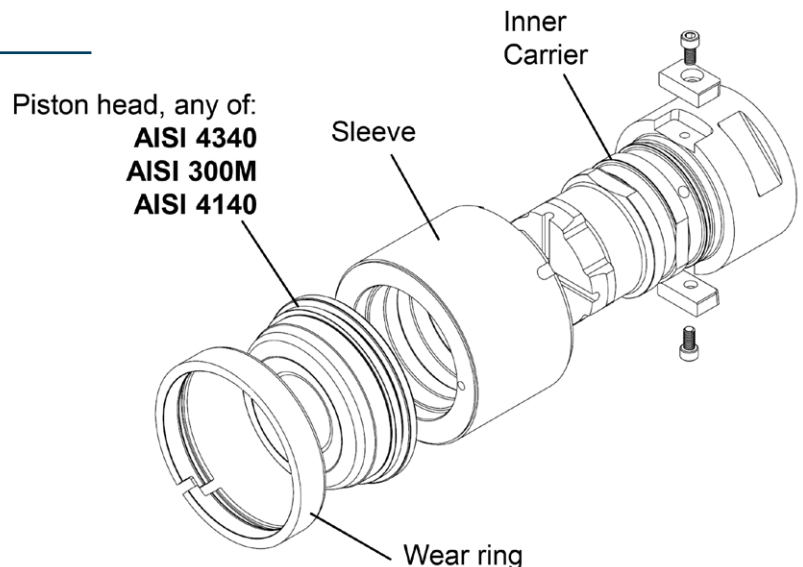
- Piston head made of 1st material
- Inner carrier coupled to piston head
- Sleeve on inner carrier
- Wear ring mounted on piston head and made of 2nd material with higher hardness and lower toughness than 1st material

## DIE CASTING PISTON WITH IMPROVED TOUGHNESS

WHAT WE ARE LOOKING FOR:

ANY Die Casting Piston having:

- Piston head made of any of AISI grade 4340, 300M or 4140 steel
- Inner carrier coupled to piston head
- Sleeve on inner carrier
- Wear ring mounted on piston head



# EXTRUSION SUCCESS STORIES



## QR CONTAINER OPTIMIZATION

Reported increases in production:

127% – MI Metals Millersburg PA

42% – Hydro Gainesville GA

31% – Bonnell Indiana

36% – Hydro Slovakia

33% – ZODIAC Air Catering  
Equipment Thailand



SCDO with Master Controller  
install – Poland



TCXi100 Install – Ontario, Canada



QR Container Install – Utah

### ARTICLE ALERT:

## **LIGHT METAL AGE**

Watch for the second part of our series of papers on Extrusion Productivity – this time the subject is Ram Speed – in the February issue. We discuss the study of five process variables: billet temperature, container temperature, container temperature taper, ram speed and steel thermal conductivity.



# DIE CASTING SUCCESS STORIES



**Thai Chanathorn Industry Co. Ltd, Thailand:**  
Results based on 1 year testing for ABP-CD R 70mm with Sleeve  
*Life time of sleeve and CD body 393,759 shots*

1. Castool ring tip is thermally and dimensionally stable
2. The production downtime can be reduced by 33%
3. Castool ring tip eliminated the aluminum re-melting 100%
4. Total cost saving of the tooling investment and consumption = 45%

**Meridian, Eaton Rapids, MI:**  
AMP R CD - 7.00" dia.  
Rings = 10,000+ avg.  
Faces= 40,000+ avg.  
Bodies (A45)= 60-80,000+ avg

The sleeves have been running for the last year and half on this program (RU Liftgate). The inserts have been reaching 40-50,000 shots.

Overall there are two machines (4200T) running this setup and more sleeves on other machines. Operators are happy and they're getting 3-4x more life for these tools.



## CLS-200 TESTING

**Ampass Industries Co. Ltd, Thailand**

Trial result for CLS200 to 60mm  
Conventional Tip

- Very good adherence to tip and sleeve
- No flame; high flash point
- No lubricant loss
- Clean environment DCM
- Lifetime improvement of shot sleeves and plunger tips

**Daisin Co. Ltd, Thailand**

Test comparison results for CLS200



## PLUNGER TIPS

**Hyundai WIA China**

160mm size  
Ring average life 10k  
AMP-CD-R, average life 15k  
(ALROTEC, average life 7k )  
Insert average 25-30k

**ZF France**

100mm  
AMP-R, ring average life 30k (they used to get 3k on solid copper tips)

# IMPROVEMENTS: Better Scheduling in the Shop

We are working closely with COSS to implement their Advance Planning Scheduling system to allow Castool better visibility to plant loading and estimated delivery dates. This will allow sales and customer service to see real time data and be able to respond to customers' delivery requirements.

25 touch screens have been incorporated into the shop floor, providing better operator and lead hand visibility

of machine loading. This is made possible through real time data collection and graphical/visual tools. Understanding capacity will be crucial to Castool's growth plan and strategic direction.

Shot sleeve line will be fully operational by the New Year and estimated completion of all product lines by June 2019.

## CASTOOL LAUNCHED A NEW WEBSITE IN 2018

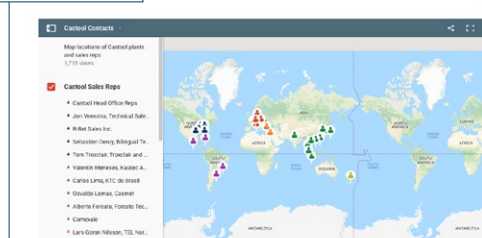
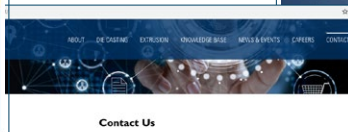
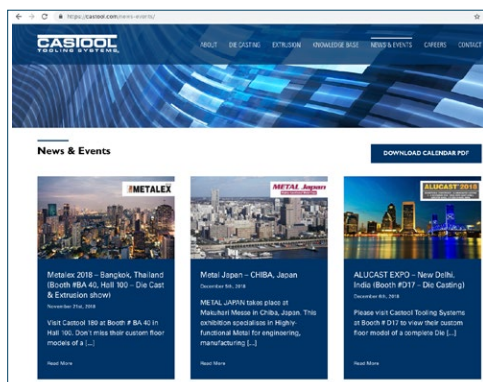
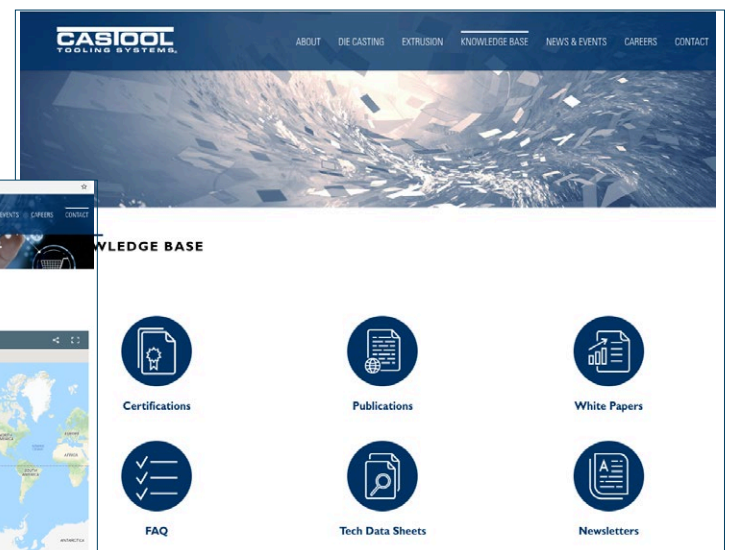
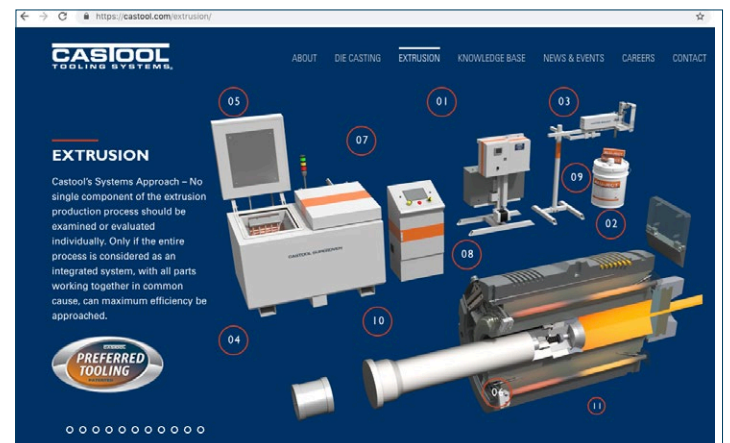
[www.castool.com](http://www.castool.com)  
key highlights:

**PRODUCT PAGES:** Comprehensive and interactive; showing the complete system approach with accompanying data sheets

**KNOWLEDGE BASE:** A complete archive of certifications, publications, white papers, data sheets and newsletters

**CONTACT:** Castool reps worldwide with contact information and map locations

**EVENTS LISTING:** all upcoming global events with descriptions



# 2018 FALL TRADE SHOWS WERE A SUCCESS!

The Die Cast Model made it to Indianapolis, Yokohama, Bangkok, and New Delhi.



ALUMINIUM 2018 - DUSSELDORF



NADCA - INDIANAPOLIS



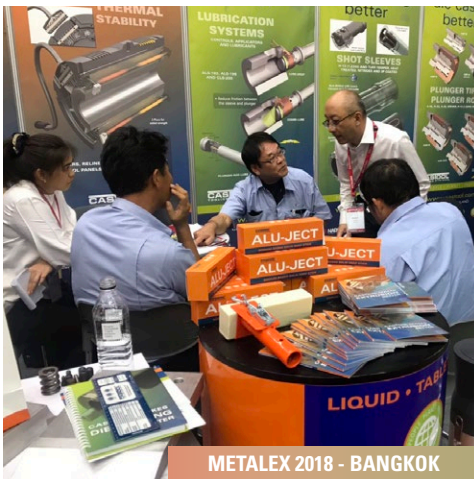
Just before Metalex in Thailand, barrel tables promoting lubricants Alu-Ject and CLS-200 were created.



CASTMET - MEXICO



CASTMET - MEXICO



METALEX 2018 - BANGKOK



JAPAN DIE CAST - YOKOHAMA



JAPAN DIE CAST - YOKOHAMA



METALEX 2018 - BANGKOK



ALUCAST - NEW DELHI



ALUCAST - NEW DELHI



# 2019



# TRADE SHOWS

Our global presence is key to our success



**Aluminium India  
BOOTH # C04**

January 31 - Feb 2, 2019  
Bhubaneswar, Orissa, India



**Extrusion Excellence Seminar/  
Process Optimization Workshop**

February 19 - 21, 2019  
Fort Worth, TX, USA



**AEC 70th Annual Meeting &  
Leadership Conference**

March 21 - 23, 2019  
Tampa, FL, USA



**Aluminium 2000  
World Congress**

April 9 - 13, 2019  
Treviso, Italy



**AFS CastExpo &  
Metalcasting Congress  
BOOTH # 2720**

April 27 - 30, 2019  
Atlanta, GA, USA



**GIFA 14<sup>th</sup> International  
Foundry Trade Fair  
BOOTH #11-44**

June 25 - 29, 2019  
Düsseldorf, Germany



**Aluminium USA  
BOOTH #328**

September 5 - 6, 2019  
Nashville, TN, USA



**AEC Management  
Conference**

September 17 - 19, 2019  
Rosemont, IL, USA



**NADCA Die Casting  
Congress & Tabletop**

October 1, 2019  
Indianapolis, IL, USA



**METALEX 2019  
BOOTH # BA 40, HALL 100**

November 20 - 23, 2019  
Bangkok, Thailand

# THE INTERNATIONAL TEAM

## Dan Dunn Ken Chien

Glenn Titmuss  
Keattikhun Chaichana  
Jean Dembowski  
Tanmanun Tiantip  
Christine Kaschuba  
Sue Lotton  
Sue Su  
Dan Phudis  
Ploy Robbins

## Extrusion Sales Director Die Cast Sales Director

Sales Coordinator Asia  
Product Specialist Asia  
Commercial Manager  
Commercial Supervisor  
Customer Service  
Customer Service  
Customer Service  
Customer Service  
Marketing Director

## CANADA / USA

Krystean Rose  
Matt Binns  
Andre Iulianetti  
Michael Williams  
Jon Veenstra  
Sebastien Deroy  
Ron Steinenger  
Sam Durbin  
Tom Troxclair

Castool  
Castool  
Castool  
Castool  
JW Industries LLC  
Sea Bass Outdoors  
R-Bet Sales Inc  
R-Bet Sales Inc  
Troxclair and Associates

## LATIN AMERICA

Valentin Meneses  
Carlos Lima  
Osvaldo Lomas  
Alberto Forcato

Kautec America  
KTC do Brasil  
Casmel  
Forcato Technologia

## EUROPE

Emmanuel Bach  
Olivier Druhen  
Bertrand Schnell  
Emmanuel Mandrelli  
Pascal Schroung  
Lars-Goran Nilsson  
Luciano Pedrini  
Jakub Jasiewicz  
Edgar Seufert  
Jurgen Barz

Comexale  
Comexale  
Comexale  
Comexale  
TEL Nordic APS  
Techno Moulds  
KDO Komponenty Dla Odlewnictwa  
Schmelzmetall  
Schmelzmetall

## UAE

Emmanuel Mandrelli

Comexale

## ISRAEL

Tuvia Kornfield

NTK Plants Management

## TURKEY

Cenk Sommez

BCM Makina Kimya

## SOUTH AFRICA

Olivier Druhen

Comexale

## JAPAN

Shigeyoshi Takagi  
Tetsuya Ishida  
Yasunori Ito  
Nami Ito

Techno Consul Benchmarks  
Tandem Technologies  
KBS Kubo Manufacturing Co  
KBS Kubo Manufacturing Co

## KOREA

JH Song  
SW Song  
Taek Jean Hwang

ANK Ltd  
ANK Ltd  
GS Tech Solutions

## TAIWAN

Jack Lee

Shiny Lee

## CHINA

Daniel Cheng  
Long Shun Cheng

OEA Bridge Link  
OEA Bridge Link

## THAILAND

Manu Mekdhanasarn  
Patcharee Parkong

Siam Anglo Alloy Company Ltd  
Siam Anglo Alloy Company Ltd

## VIETNAM

Manu Mekdhanasarn  
Patcharee Parkong  
Tran Thi Thanh Thuy

Siam Anglo Alloy Company Ltd  
Siam Anglo Alloy Company Ltd  
Thang Long Mechanics Equipment Co

## INDONESIA

Yovinus Krisnanto

PT Wilisindomas Indahmakmur

## MALAYSIA

Manu Mekdhanasarn  
Patcharee Parkong  
Chek Tay

Siam Anglo Alloy Company Ltd  
Siam Anglo Alloy Company Ltd  
Lustre Specialty Materials

## SINGAPORE

Manu Mekdhanasarn  
Patcharee Parkong

Siam Anglo Alloy Company Ltd  
Siam Anglo Alloy Company Ltd

## INDIA

Sachin Kumar

## AUSTRALIA/NEW ZEALAND

Doug Loader

Extrusion Machine Co New Zealand