CASTOOL™
TOOLING SYSTEMS

NEWSLETTER SUMMER 2025

www.castool.com

ORGANIZATIONAL

UPDATES

CASTOOL GROUP

We're excited to share several key leadership changes that have taken place over the past few months, strengthening our team and positioning Castool for continued growth and innovation

John Cullum

John has been appointed Vice President at Exco Technologies Ltd and Operations Manager for Castool Group. With an impressive 40 plus years of experience at Castool, John now oversees Manufacturing, Sales, Process Planning, Design and Purchasing, bringing deep institutional knowledge and leadership to these critical functions.

Michelle Edney

Michelle joins Castool as Group Controller, bringing a wealth of experience from larger corporate environments. Her background will be instrumental in adding much-needed structure and financial oversight to our operations.

Jean Dembowski

Jean expands her role to include Commercial Sales Management. Jean will also play a key role in implementing and managing our new CRM system, helping streamline processes and improve customer engagement.

Scott steps into the role of Purchasing Manager. With hands-on experience from the shop floor and a strong background in process planning, Scott is well-positioned to bring valuable improvements to our purchasing operations.

Danny takes on the role of Technical Director. With over 30 years of experience in extrusion and die casting, Danny will be a vital resource in supporting our customers and sales teams, helping to enhance product value and technical excellence.

Scott Polhamus

Danny Dunn

WE WELCOME THESE LEADERS INTO THEIR NEW ROLES AND LOOK FORWARD TO THE POSITIVE IMPACT THEY WILL BRING TO CASTOOL GROUP.

Die Casting

NEW ARRIVAL

Introducing

Introducing Castool's New Plunger Lubricants : PLG 48

We are excited to announce the addition of PLG 48 to our range of plunger lubricants, joining the well-regarded CLS 200. While CLS 200 has proven to be highly effective for small castings and plunger tips (less than 120 mm in diameter), it lacked the necessary viscosity for larger castings and plunger tips (100 to 320 mm in diameter).

Both PLG 48 and CLS 200

Align with our commitment to using synthetic and biodegradable substances that are beneficial for castings, people, and the environment. PLG 48, with its very high viscosity, offers a low-friction, high-performance, graphite-free lubricant specifically designed for larger presses. Stay tuned for more updates on how these lubricants are enhancing performance and sustainability in the industry!

2025

Extrusion

NEW ARRIVAL

Introducing

Introducing Alu Ease: The New Powder-Based Lubricant

We are pleased to announce the addition of Alu Ease to our range of lubricants, joining the well-established Alu Ject, our liquid sodium-based lubricant. While Alu Ject has been performing exceptionally well, many extruders prefer using a powder-based lubricant. However, one of the main disadvantages of powder lubricants is the frustrating overspray.
Alu Ease has been specially formulated to avoid this frustration and mitigate health and environmental risks. It can be used with most powder spray systems currently in use, providing a convenient and efficient solution for extruders.

Stay tuned for more updates on how Alu Ease is enhancing performance and sustainability in the industry!

2025

New Dummy Block updates

Apex Disc Block (ADB)

A REVOLUTION IN DUMMY BLOCK TECHNOLOGY

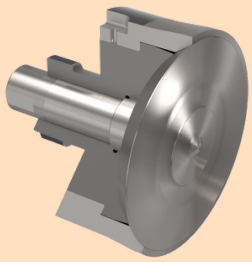
We are excited to introduce the Apex Disc Block (ADB), affectionately known as the Awesome Dummy Block by our engineering team.

Developed over five years, the ADB was created in response to the increasing demands of higher pressure, longer billets, and stronger alloys used by many extruders.

Traditional dummy blocks often yielded or plastically deformed too quickly, but the ADB represents a significant innovation in our design principles.

The ADB features a thin mandrel that bends to expand the outer shell, which is shrink-fitted onto the holder to maximize the pad area.

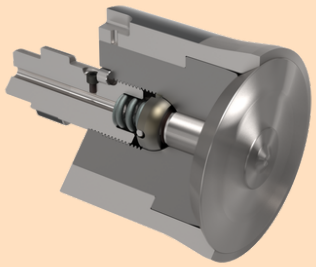
This design allows the block to withstand higher pressures, making it a robust and reliable choice for modern extrusion operations.



ADB-S

Short

A compact block roughly 40% shorter than the standard version. Simplified and cost-effective-idea for limited-space applications or when economy is a priority.

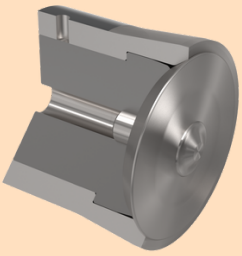


ADB-B

Bayonet-Standard

The original Castool bayonet block. Matches the length and design of RRB and Marathon models, allowing full interchangeability.

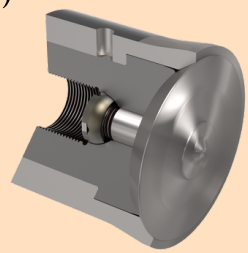
APEX DISC BLOCK (ADB)



ADB-E

Extreme

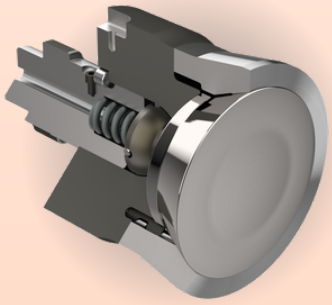
Built for high-pressure, high-performance environments. Requires a stem with an internal rod and is ideal for hard alloys and extreme extrusion conditions.



ADB-C

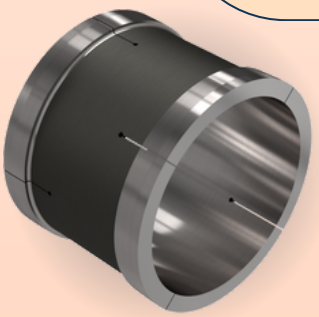
Custom

A verstile option compatible with a variety of attachment methods, including rod, stud, and reverse bayonet systems.

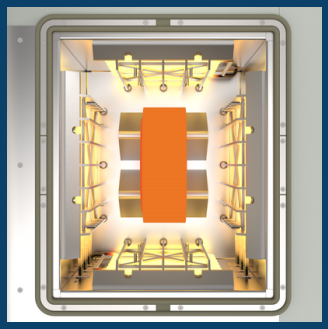


REPLACEABLE RING BLOCK (RRB)

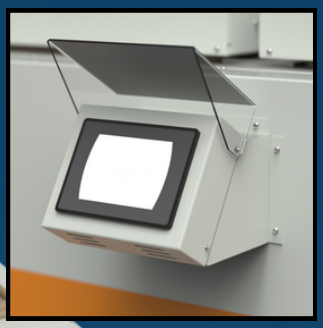
Designed for less than 100 ksi



CLEAN-OUT BLOCK



4-sided heating for large dies



NEW MODEL
TWIN CELL

TCX 100 / 200 / Custom

Product Features

Castool's Innovative Single Cell Die Ovens: A Blend of Tradition and Modernity
Over 30 years ago, Castool pioneered the development of single cell die ovens, with our iconic small blue ovens becoming a staple in extrusion operations worldwide. We are excited to announce the launch of our new oven, which combines the simplicity of our original design with numerous technical control upgrades that extruders find invaluable in their operations.
The new oven features the same reliable heaters and algorithm, now paired with a simple, low-cost controller and a more robust lid opening system. This blend of tradition and modernity ensures that our ovens continue to meet the evolving needs of the industry.

More updates and initiatives will be shared soon on how Castool's innovations are enhancing performance and efficiency in extrusion operations!

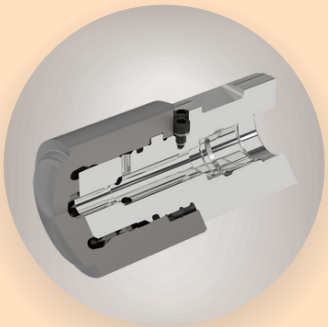
Advancements in Plunger Systems

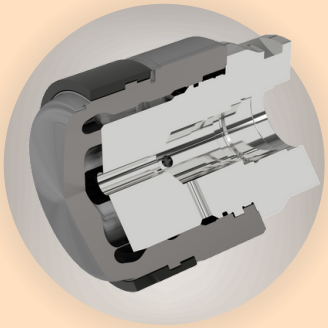
New Updates

We are thrilled to share the latest developments in plunger systems, which have evolved significantly from the original ABP and ARP systems designed by Allper, now part of Castool.

The new CDP and CRP plunger systems feature a conformal cooled plunger tip that efficiently transfers the cooling medium from the holder to the internal face of the tip.

This innovative design ensures more intense cooling, leading to faster solidification of biscuits and maintaining a stable plunger tip diameter.





CDP

CRP

In most cases, the plunger tip material used is Con Duct, known for its exceptional thermal conductivity and toughness. Con Duct outperforms traditional hot work tool steels, offering double the toughness and superior thermal properties compared to most hot work tool steels.

Further updates and developments will be shared as we continue to evolve and grow.

CONGRATULATIONS

CASTOOL METALLURGICAL LABORATORY

Accredited Laboratory

A2LA has accredited

CASTOOL METALLURGICAL LABORATORY

Ontario, Canada

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to Joint ISO-ILAC-IAF Communiqué dated April 2017).

Presented this 3rd day of July 2025.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 7557.01
Valid to July 31, 2027

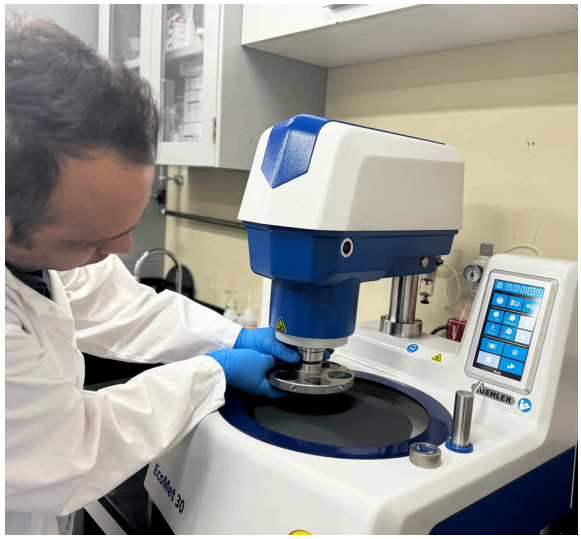
For the tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.

LABORATORY CERTIFICATION

We are incredibly proud to announce that Castool Metallurgical Laboratory in Uxbridge, ON, has been awarded continued accreditation by the American Association for Laboratory Accreditation (A2LA).

This prestigious recognition underscores our ongoing dedication to delivering the highest standards of quality, accuracy, and reliability in our metallurgical testing and analysis. Maintaining this accreditation is a testament to the hard work and expertise of our team, as well as our unwavering commitment to excellence and innovation in the industry.

We look forward to continuing our mission of providing exceptional services that meet and exceed our clients' expectations.



ASIA MARKET

Castool's Presence in India: Strengthening Customer Relationships and Showcasing Innovations

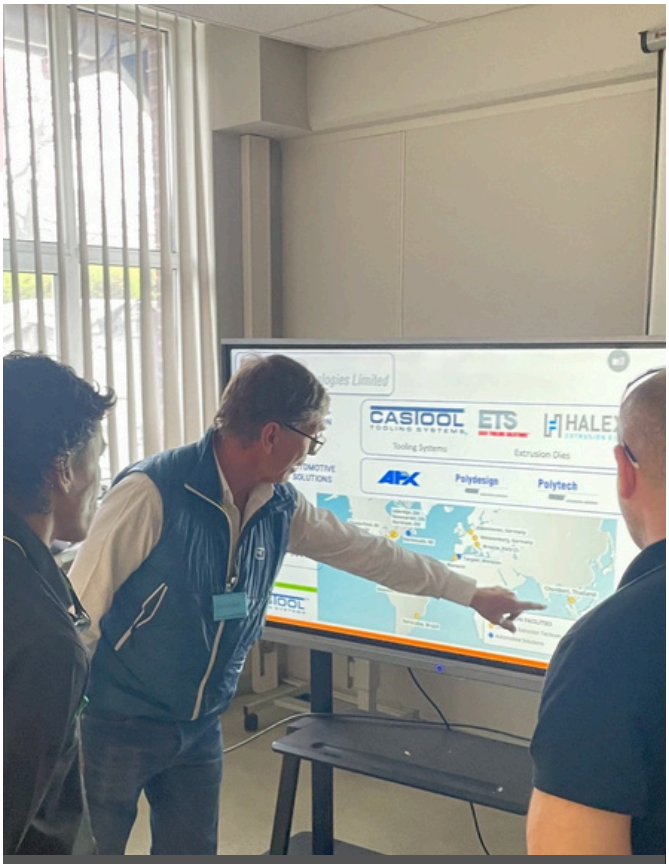
We are pleased to share that Keattikhun Chaichana, better known at Castool as Palm, has been actively visiting India several times recently. During his visits, Palm has been meeting with existing customers and making cold calls in collaboration with Proterial.

We are excited to announce that Castool will be co-exhibiting with Proterial at Alumex India in New Delhi from September 11-13. This event presents a fantastic opportunity to showcase our latest developments in extrusion and die cast tooling.

Our customers have shown great interest in our new innovations, and we look forward to sharing more about how these advancements can benefit their operations.

We will continue to provide timely updates as new initiatives take shape on our participation at Alumex India and our ongoing efforts to strengthen customer relationships in the region!

EXPANDING OUR PRESENCE IN THE EUROPEAN MARKET



The European market is known for its aggressive approach to both die casting and extrusion, with high demands for productivity and intense competition. We are confident that our innovations and commitment to excellence will enable us to thrive in this dynamic environment.
Stay tuned for more updates on our expansion efforts and how we are poised to make a significant impact in the European market!

GOOD CALL

We are excited to announce that we are ready to start growing our European market for both extrusion and die cast tooling. The past couple of years have been challenging as we worked diligently to develop our products to meet the specific needs of the European market and ensure that our C90 team delivers the quality and service required to compete effectively.

2025 DIE CASTING CONGRESS &TABLETOP
OCTOBER 7-9, 2025 | MILWAUKEE, WI

EUROGUSS 2026
Nuremberg, Germany
13-15 January 2026.

CALL FOR PAPER

Upcoming Presentation: Influence of Gating Geometry on Shot Sleeve and Plunger Tip Performance

We are excited to announce that Shah Imani will be presenting the paper titled, "Influence of Gating Geometry on the Operational Performance of the Shot Sleeve and Plunger Tip," at the NADCA conference in Milwaukee, WI.

A similar abstract has also been submitted for presentation at Euroguss in Nuremberg in January 2026.

This study evaluates the performance of shot sleeves and water-cooled plunger tips by examining various sleeve designs. It focuses on analyzing the temperature distribution, deformation, and expansion of plunger tips and shot sleeves.

The efficiency of these design improvements is measured using computer simulations that model water flow, cooling efficiency, and biscuit formation.

Cooling performance is assessed through Computational Fluid Dynamics (CFD), while thermomechanical simulations estimate stress levels and predict deformation, offering valuable insights into thermal stability and overall durability.

The study also considers plunger tip lubrication, highlighting the importance of selecting the proper lubricant, and examines how the configuration of gun-drilled cooling channels impacts the effectiveness of the shot sleeve.

We will forward more information as Castool continues to evolve and grow

DIE PERFORMANCE IMPROVEMENT CLINIC

ALUMINUM EXTRUDERS COUNCIL

May 14-15, 2025

Sheraton Music City Nashville Airport Hotel
Nashville, Tennessee , USA

Top News

This marks the first time the Press Maintenance and Die Performance Clinics have been combined. The discussions covered tooling and die heating in the Press Maintenance session, while the Die Clinic focused on external factors and temperature control.

The event was well received, creating strong opportunities to further our business with numerous extruders.

Paul Robbins & Richard Dickson
Dan Dunn

Successful Workshop and Paper Presentations at

AAEC 2025

Australasian aluminium extrusion conference in Brisbane

We are pleased to share that Richard Dickson and Paul Robbins delivered a half-day workshop and presented four papers during the AAEC in Brisbane, Australia, this past July.

The papers were very well received, helping to solidify our relationships with existing customers and opening several new doors to increase our market share.

Brisbane Australia

July 14-17, 2025

We appreciate your continued support and look forward to sharing more exciting news soon.

EVENT UP COMING 2025

INDIA

ALUMEX INDIA 2025

New Delhi, INDIA
Castool & Proterial

SEPTEMBER 11-13, 2025

ALUMINUM SUMMIT ANODIZING & EXTRUSION

Atlanta, USA

USA

SEPTEMBER 16-18, 2025

USA

DIE CASTING CONGRESS & TABLETOP

Milwankee, Wisconsin, USA

OCTOBER 7-9, 2025

EUROGUSS MEXICO 2025

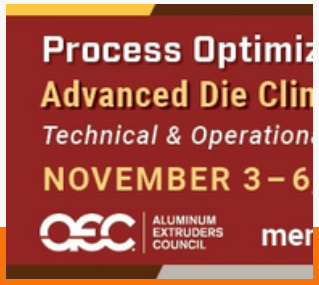
Castool & Proterial
Guadalajara, Mexico

EUROGUSS MEXICO

MEXICO

OCTOBER 15-17, 2025

USA



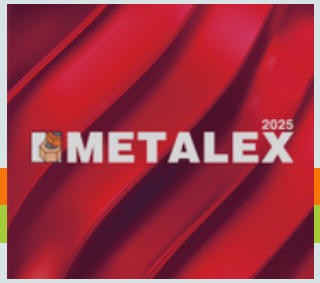
PROCESS OPTIMIZATION WORKSHOP ADVANCED DIE CLINIC

Fort Worth, Texus, USA

NOVEMBER 3-6, 2025

METALEX

Bitec Bangkok, Thailand



THAILAND

NOVEMBER 20-23, 2025