

INSIDER

**We welcome all our
new employees!**

NEW EMPLOYEES - CASTOOL

- Jeff Hoyle
Quality Inspector
- Calson Sampson
Welder
- Amandeep
CAD Design
- Michael Lue
Account Representative
- Fahmi Saeed
Equipment Technician
- Glen Marden
Cleaner

RETIREMENT

Thank you Ajmer Brar for your
36.5 years of service!

**Occupational Health and
Safety 2019 Report**

The Health and Safety performance
in 2019 is:

**0 Lost-time Injuries
with 1 Medical Aid**

This decrease was attributable to a
stronger effort from employees resulting
from an awareness incentive program and
follow-up by Management.

Castool's Joint Health and Safety
Committee has an additional 2 members
who have completed Parts 1 and 2 of
Certification. The committee continues to
evaluate and further develop health and
safety programs to support the goal of a
zero-injuries workplace.

Jim Birnie, Health and Safety Coordinator

Castool Tooling Systems is pleased to be among the first in our industry to transition to the new high-level international standards ISO 9001:2015 quality management system and ISO 14001:2015 environmental management system and achieve the much-anticipated international standard for occupational health and safety ISO 45001:2018 which was published March 2019 allowing us to continue operating safely globally.



QUALITY



SAFETY



ENVIRONMENT

ISO 9001:2015 helps Castool Tooling Systems to demonstrate to our customers that we are able to offer products and services of consistently good quality. It also acts as a tool to streamline our processes and make them more efficient. It allows us to adapt to a changing world. It enhances our ability to satisfy our customers and provides a coherent foundation for growth and sustained success.

ISO 14001:2015 environmental management system standards responds to the latest trends, such as an increasing recognition of the need for companies to factor in both external and internal elements that influence their impact, including climate volatility.

Other key improvements in the new version of ISO 14001:2015 include:

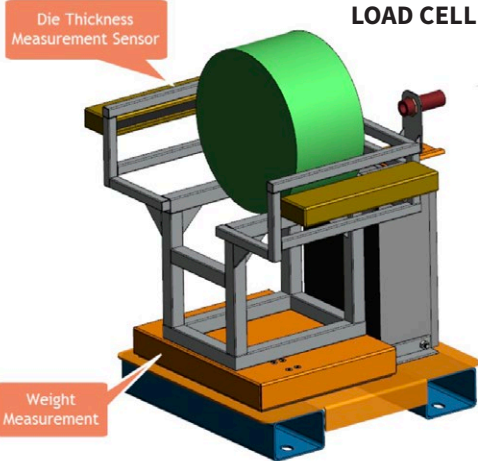
- A greater commitment from leadership
- An increased alignment with strategic direction
- To ensure it remains relevant to the marketplace
- Greater protection for the environment, with a focus on proactive initiatives
- More effective communication, driven through a communications strategy
- Life-cycle thinking, considering each stage of a product or service, from development to end-of-life

The migration to **ISO 45001:2018** from the old British Standard OHSAS 18001 provides effective and usable guidance for improving worker safety and sets a process for improving work safety in global supply chains. Globally over 7,600 people die each day from work-related accidents or diseases – that is over 2.78 million every year; the burden of occupational injuries and diseases is significant, both for employers and for the wider economy, resulting in losses from early retirements, staff absence and rising insurance premiums. *(See sidebar)*

SPOTLIGHT ON SYSTEMS AND IT DEPARTMENT



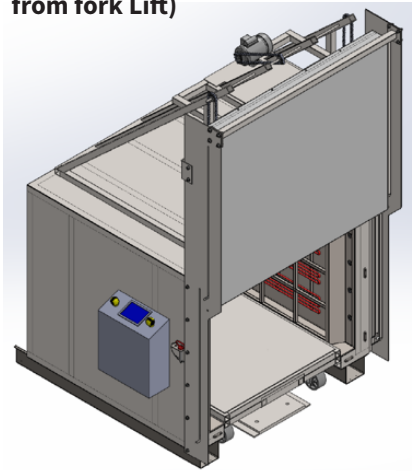
Name: Paramjit Saimbhi (Lucky)
Title: Systems & IT Department Manager
Personal Profile: 22yrs with Castool
 Systems Development for Extrusion and Die Cast Industry
 Manage IT Department
Team: Richard, Eugene, Amaad, Sanjeev, Scott, George, Khan, Dan, Shawn
Skills: Product Development / SCADA / Automation and Robotics / IT / Programming /
 Machining / Machine Startups & Commissioning
Languages: English, Hindi, Punjabi
Latest Innovations by Equipment Team:
 VOS, Load Cell, Die Jack & Shear, Insertion Heater, Stem Heater



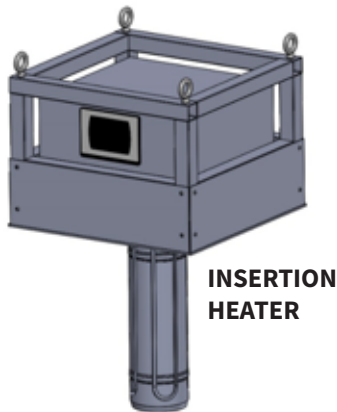
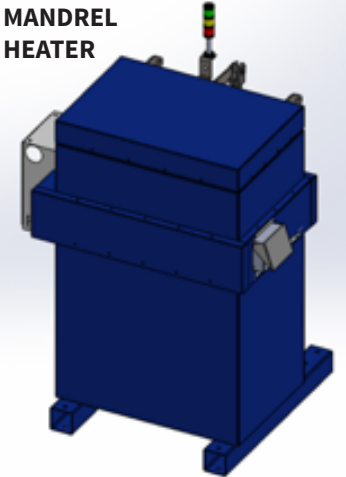
LOAD CELL

Pyrometer

FRONT LOAD OVEN for Magnesium billets (remote control operation from fork Lift)

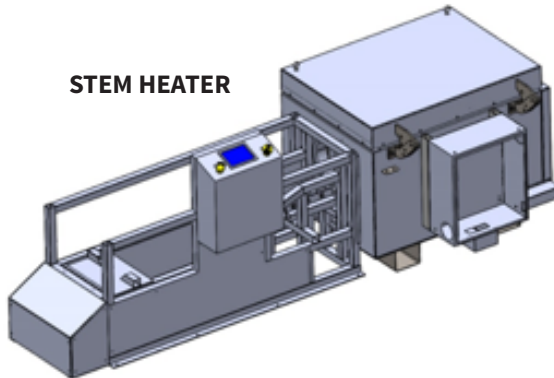


MANDREL HEATER

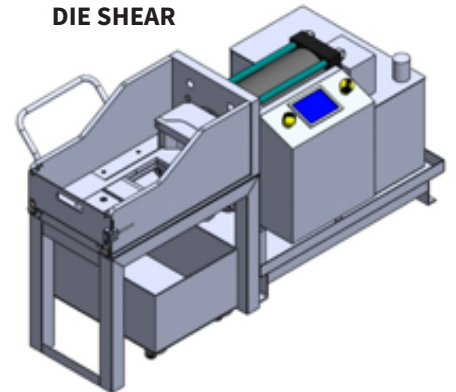


INSERTION HEATER

STEM HEATER



DIE SHEAR

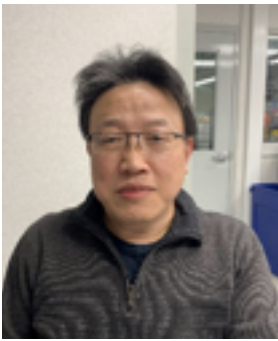


QR & CONTROL PANEL INSTALL - COLUMBIA

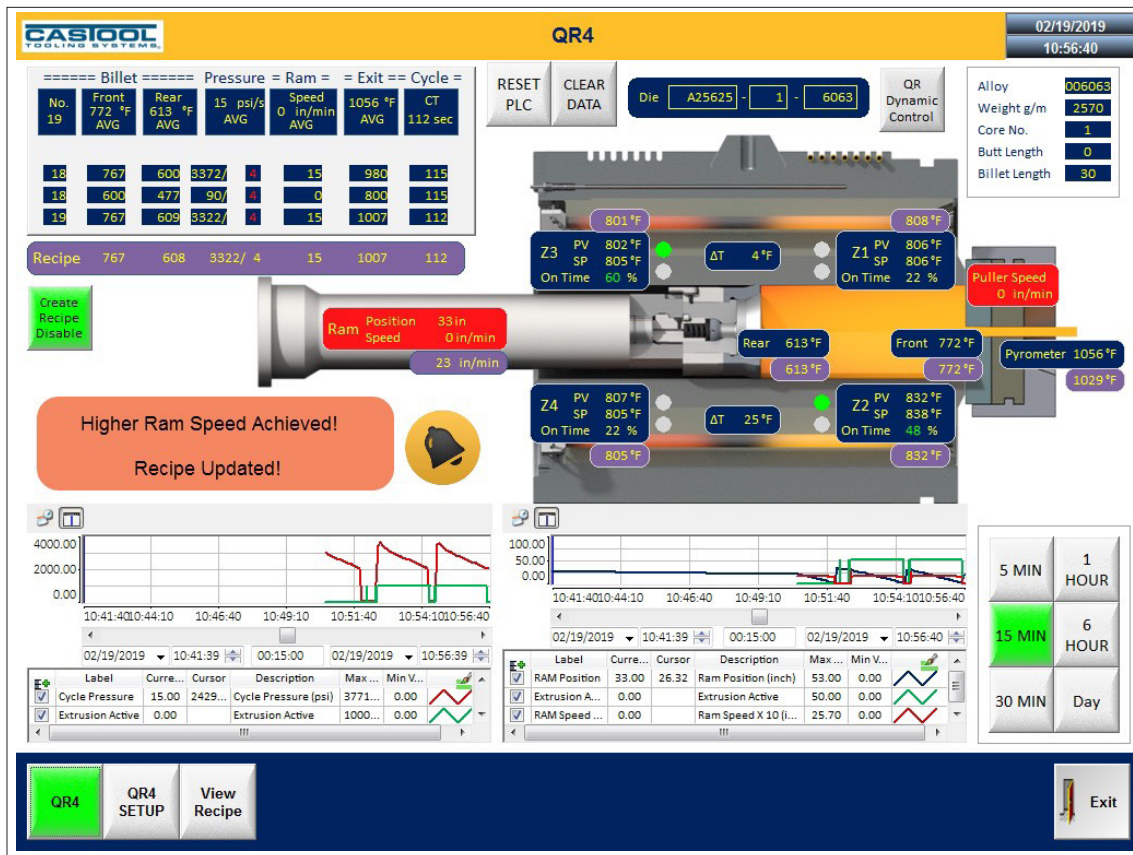


QR INSTALL - ITALY

SPOTLIGHT ON SYSTEMS AND IT DEPARTMENT



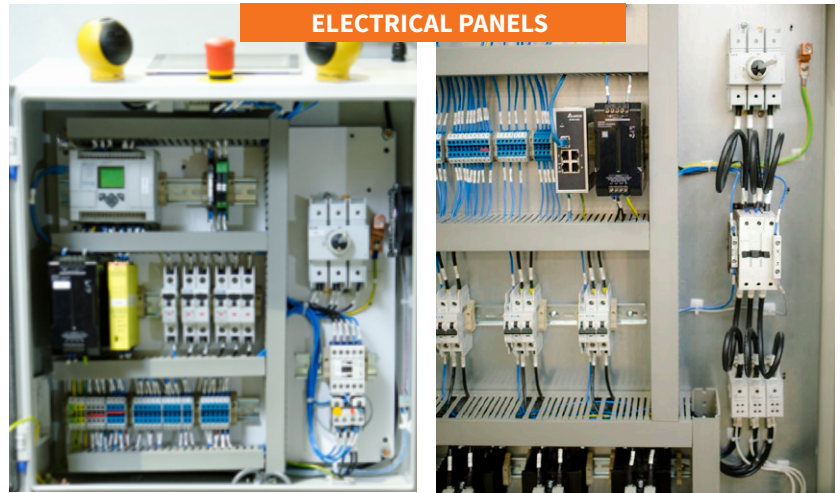
Name: Richard Wang
Title: Sr. Software Developer / Technician
Personal Profile: Software Development and Design
 IEEJ and MSEE
 Over 20 years' experience in Semiconductor Industry, Plastics Injunction, Biomedical Equipment and Extrusion Industry
Skills: Indusoft Web Studio / .Net / C/C++ / PLC / SQL / VBScript / SCADA
Languages: Mandarin, Japanese, English
Latest Innovation: VOS



SPOTLIGHT ON SYSTEMS AND IT DEPARTMENT



Name: Sanjeev Abraham Chacko
Title: Electrical & Controls Lead Hand / Technician
Personal Profile: Electrical Design, Production of Electrical Control Panels, Die Oven Testing
Bachelor Degree in Electrical Engineering
Licensed Electrician
Over 8 years' experience in Electrical & Electronics Industry
Skills: Electrical Engineering / Electrical Drawings / Control Panel Design / Troubleshooting / Testing / Inspection / Building Control Panels
Languages: English, Malayalam



Name: Scott Kelly
Title: Electrical & Controls Designer / Technician
Personal Profile: Electrical Controls Designer and PLC Programmer
Advanced Diploma in Electro-Mechanical Engineering Technology
Over 8 years' experience designing, developing and building control systems in Water Treatment, Food and Beverage, Automotive and Extrusion Industries
Skills: SCADA Systems: GE iFix, Factory Talk, Wonderware InTouch / PLC Programming Tools: Rockwell RSLogix 5, RSLogix 500, RSLogix 5000, Schneider Telepace Studio, Proficy Logic Developer, CX Programmer, Sysmac Studio, TIA Portal / OIT Development Tools: PanelBuilder, Proficy View, RSView, DOPSoft, CCW, NB-Designer / Programming Languages: Ladder, Function, Block Diagram, Structured Text, Visual Basic, VBA, C, Pascal, Karel / Design Environment: AutoCAD, Visio, Solidworks / Process Instrumentation and Control Hardware / Industrial Networks / Pneumatics / Hydraulics / Servo Motors

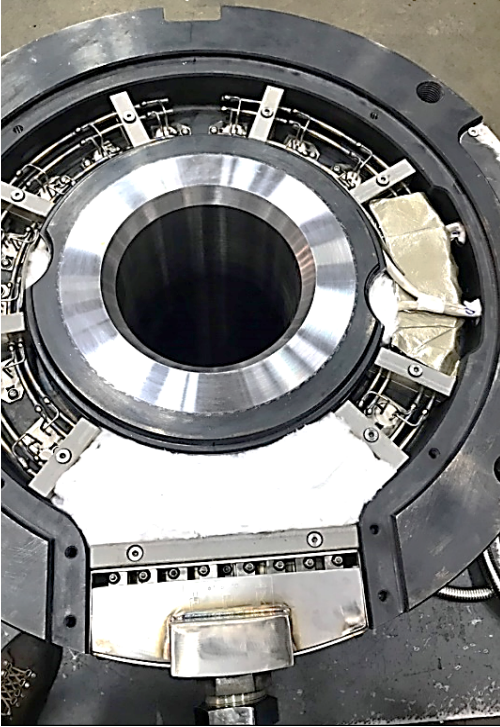


SPOTLIGHT ON SERVICE AND EQUIPMENT DEPARTMENT

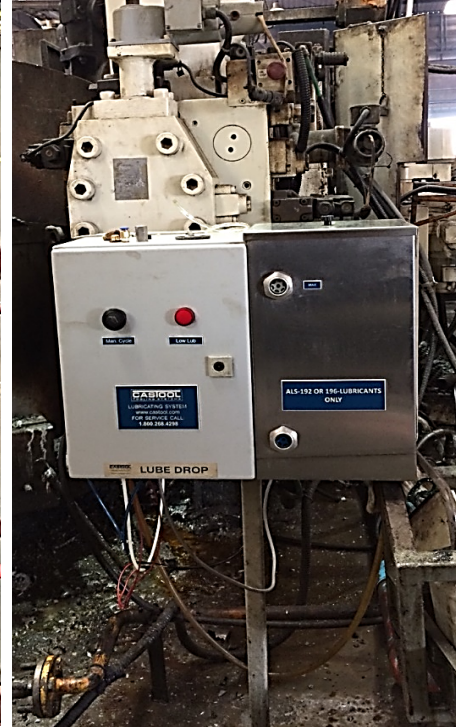


Name: Manop Unkhampa
Title: Facilities & Equipment Supervisor, Castool180
Personal Profile: QR Install, Die Oven Install, Lube Unit Install
Over 15 years' experience in Automotive Development
Skills: Machine Maintenance / Electrical / PLC
Languages: Thai, English

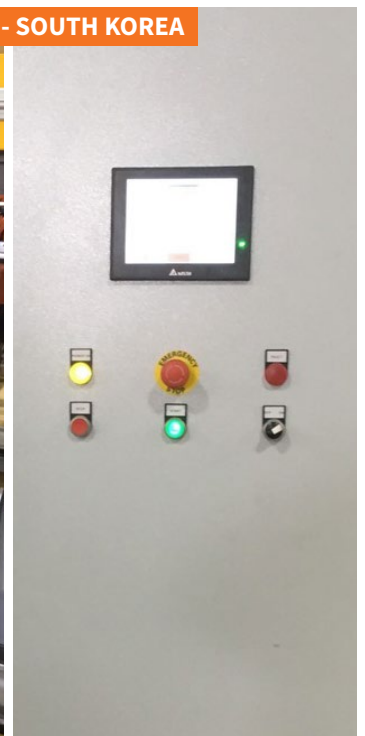
QR CONTAINER ASSEMBLY & POWER TESTING



COMBI-LUBE INSTALL - INDONESIA



QR & CONTROL PANEL INSTALL - SOUTH KOREA



SPOTLIGHT ON SERVICE AND EQUIPMENT DEPARTMENT

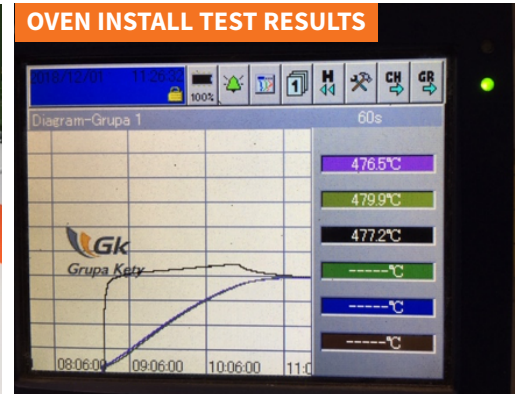
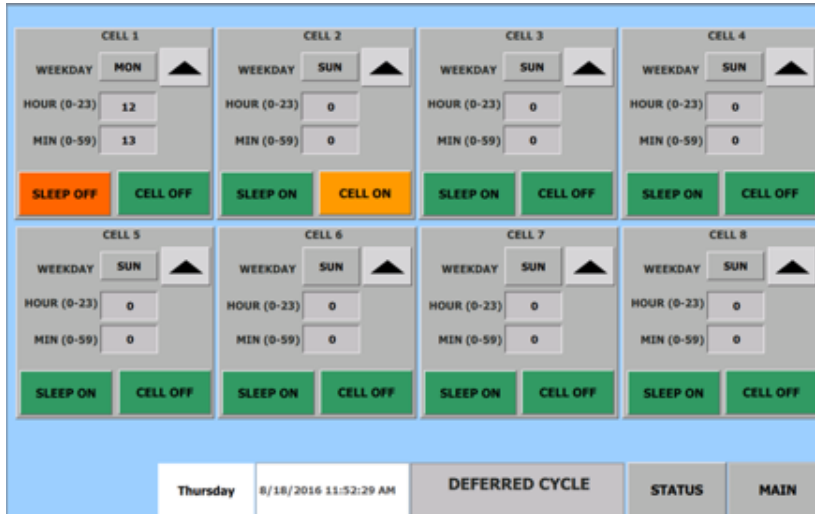


Name: Yevgeny Slepian
Title: Service Technician
Personal Profile: Development of PLC and HMI programs
 Bachelor of Engineering
 Over 30 years' experience in controls engineering in Hydraulic Presses, Automated Machinery for Automotive Industry and Packaging Industry
Skills: Programming Rockwell / Siemens / Mitsubishi / PLC / HMI programming / Electrical Schematic Design
Languages: English, Russian, Ukrainian
Latest Innovation: Developing new oven PLC / HMI program

**OVEN LINE
Main Screen**



**OVEN LINE
Deferred Screen**



SPOTLIGHT ON SERVICE AND EQUIPMENT DEPARTMENT



Name: Makcemus Amaad
Title: Service Technician
Personal Profile: Installation, Repair and Design
309A- Electrician, Electro Mechanical Engineer
Over 25 years' experience as Electrician
Skills: 309 A-Electrician Construction / Maintenance
Languages: English, Arabic

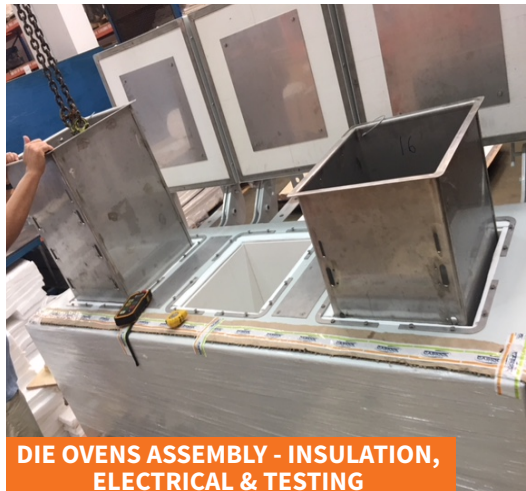
INSTALLATIONS



Name: Niwate Kaewlaowyong
Title: Technician, Castool180
Personal Profile: QR Assembly, Die Oven Assembly and Lube Unit Assembly
Electrical Engineering certificate
Over 10 years' experience in Electrical, Mechanical, Hydraulic Industries
Skills: Machine Maintenance / Wiring Control Panels / Mitsubishi PLC advance level / AB PLC Basic level / Siemens PLC Basic level
Languages: Thai, English



DIE OVEN CONTROL PANEL WIRING



DIE OVENS ASSEMBLY - INSULATION, ELECTRICAL & TESTING



QR CONTAINER ASSEMBLY & POWER TESTING

Castool QR Container Controller

OPTION	DESCRIPTION	CASTOOL QR CONTAINER CONTROLLER	PRESS MANUFACTURER CONTROL PANEL
Soft Start	Helps remove moisture from the heating elements	Soft Start	N/A
Ramping	Ramp the container to target temperature Linear Ramping recommended for minimal Thermal and Mechanical Stress Step Heating usually done at 100° C / hr	Linear Ramping	Step Heating
Zone Control	PID control Zone setpoints using phase angled fired relays	PID Control with Noise filtration	PID Control
Offset Control Top to Bottom	Bottom Zone follows the top zone for maintaining mechanical properties for the profile	Zone Offset Control	N/A
Air Cooling Control	Help create QR thermal gradient for achieving higher Ram speeds	Integrated Air Cooling	N/A
Idling	Save energy and reduce thermal stress on the container in planned downtime	Idling	N/A
Recipe	Option to run setpoints specific to die profile and alloy	Recipe	N/A
Warranty	Extended Warranty on the complete System	Extended Warranty	N/A
Commissioning	On site support and Training provided by Castool Technician	Startup Support by Castool Tech	N/A
Integration	On site and remote support for Data exchange setup for Press HMI, recipes, data logging, alarms, etc	Integration Support by Castool Tech	N/A
Thermocouple Redundancy	Redundant thermocouple with logic to keep zone heating even if one thermocouple fails	TC Redundancy with Logic	N/A
Diagnostics			
Cold Junction	Compare Zone temperature to check for cold junctions	Advanced Diagnostics Cold Junction	Basic Diagnostics Alarms
Current Draw	Monitor current draw per zone, check for failed elements, check for failed SSR, Circuit Breaker Trip, etc	Current Draw	
Trend Log Alarms	Track zone temperatures	Trend Log Alarms	
Optional Remote VPN support	Castool install VPN module to help troubleshoot any issues	Available	N/A
Auto Email functionality	Send emails automatically if temperature drops below setpoint	Available	N/A

DIE CASTING MARKETING

Recent ad in
Die Cast Engineering



CASTOOL MAKES DIE CASTING BETTER brochures have recently been updated with the addition of a new section on Die Venting and Chill Vents. We are also introducing Additive Manufacturing – exciting new technology from Exco Engineering.

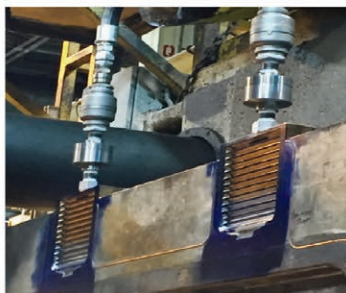
DIE VENTING



WHY VENT?

Reduce porosity, cold lap, flash and resulting scrap and downtime

- Pressure enforced venting and vacuum assisted systems
- Chill vents evacuate until end of casting
- Increased venting efficiency compared to other chill vents
- No ejector pins or cooling required
- Vacuum tanks and controls
- Monitor cavity pressure, volume flow and humidity



InterGuss
Gießereiprodukte GmbH

ADDITIVE MANUFACTURING

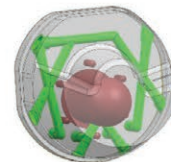
Additive manufacturing can thermally improve die casting conditions, resulting in reduced cycle times and extended tooling life. This is accomplished by conformal cooling channels which were impossible with conventional manufacturing processes.

We can accommodate up to 100kg or 400mm x 400mm parts. A proprietary heat treatment system is also in-house to guarantee consistency and short lead times.

Each additive manufactured part undergoes Thermal Simulation.



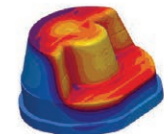
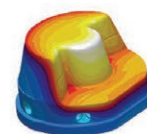
Large-scale AM machines capable of delivering tool steel components



CONVENTIONAL



3D PRINTED



EXCO
ENGINEERING

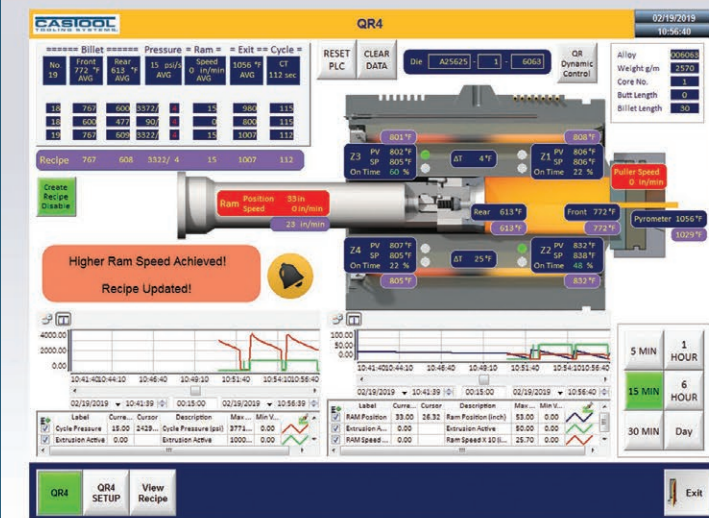
EXTRUSION MARKETING

Recent ad for the
AEC Buyer's Guide



CASTOOL MAKES EXTRUSION BETTER brochures have recently been updated with the addition of a new section on Systems and Service.

SYSTEMS AND SERVICE



Programming



Optimization



Integration



Training



Installation



Pre-heating

RECENT EVENTS...



AUSTRALASIAN ALUMINIUM EXTRUSION WORKSHOP - MELBOURNE, AUSTRALIA

Presentations from Castool Tooling Systems included Paul Robbins on 'Die Heating Systems', and Ken Chien on 'Containers and Dummy Blocks'. For the session topic of Extrusion Efficiency, Paul Robbins and Richard Dickson discussed 'Process Optimisation and Thermal Management'.



ALUMINIUM TWO THOUSAND WORLD CONGRESS - TREVISO, ITALY

Castool's presentation on Extrusion Productivity - Paul Robbins



ALUMINIUM INDIA – JANUARY 31 - FEBRUARY 2



AEC PROCESS OPTIMIZATION SEMINARS – Presentations on QR Containers, Dummy Blocks & Die Heating by Dan Dunn



UPCOMING



TRADE SHOWS

Our global presence is key to our success



AFS CastExpo & Metalcasting Congress
BOOTH # 2720

April 27 - 30, 2019
Atlanta, GA, USA



Advanced Die Clinic

May 7, 2019
St. Louis, MI, USA



GIFA 14th International Foundry Trade Fair
BOOTH #11-44

June 25 - 29, 2019
Düsseldorf, Germany



Aluminium USA
BOOTH #328

September 12 - 13, 2019
Nashville, TN, USA



AEC Management Conference

September 17 - 19, 2019
Rosemont, IL, USA



NADCA Die Casting Congress & Tabletop
BOOTH #115

October 1 - 3, 2019
Indianapolis, IL, USA



METALEX 2019
BOOTH # BA 40, HALL 100

November 20 - 23, 2019
Bangkok, Thailand



EUROGUSS 2020
Exhibition Center Nuremberg

January 14 - 16, 2020
Nuremberg, Germany



ET'20
BOOTH # 501

May 19 - 21, 2020
Orlando, Florida, USA

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
Michael Lue
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