

# AUTO POUR

PYROMETER SYSTEM FOR  
LIQUID METALS IN THE FOUNDRY



① 600 to 1600 °C / 1112 to 2912 °F



**LAND**  
**AMETEK**<sup>®</sup>  
PROCESS & ANALYTICAL INSTRUMENTS



QUALITY CUSTOMER SOLUTIONS

# AUTO POUR

PYROMETER SYSTEM FOR LIQUID METALS IN THE FOUNDRY

## AMETEK LAND HAS BEEN MANUFACTURING PRECISION MEASURING EQUIPMENT SINCE 1947.

WE ARE SPECIALISTS IN NON-CONTACT TEMPERATURE MEASUREMENT AND COMBUSTION MONITORING WITH APPLICATIONS ACROSS DIVERSE INDUSTRIES SUCH AS STEEL AND GLASS MAKING, POWER GENERATION AND CEMENT MANUFACTURE.

As part of AMETEK Process & Analytical Instruments Division since 2006, our customers benefit from the worldwide AMETEK sales and service team.

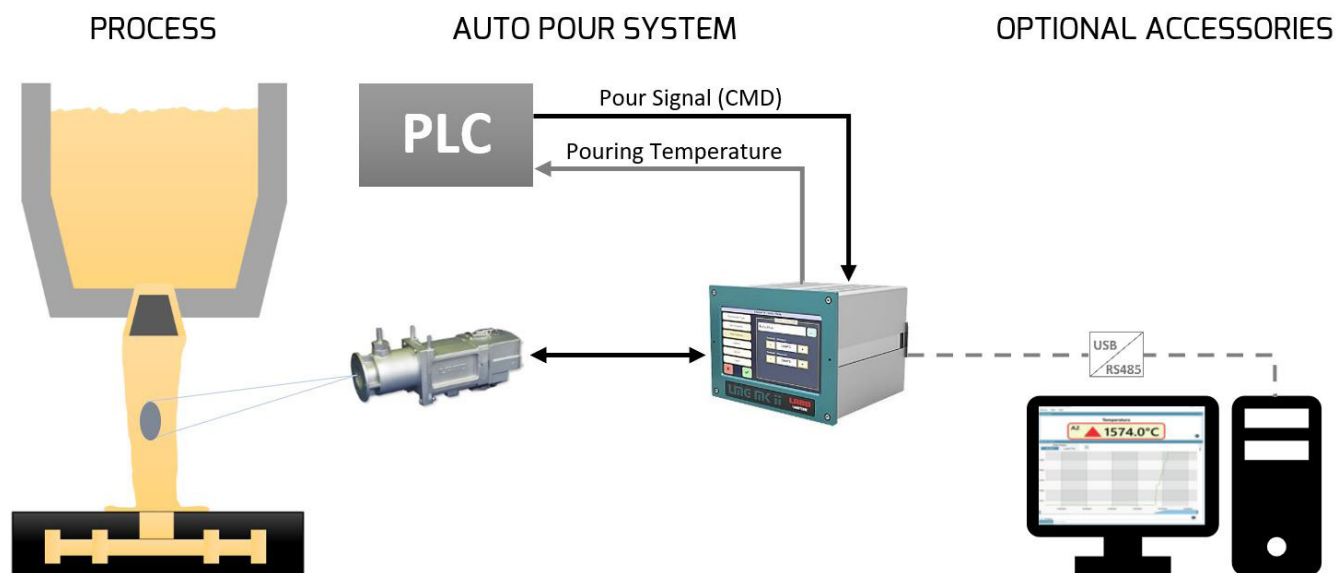
As automation of processes increases in the foundry industry, AMETEK Land continues to innovate to remain at the forefront of these developments with the introduction of the AMETEK Land Auto Pour Pyrometer System, designed specifically to measure the temperature of liquid metals during pouring into moulds and castings, without disrupting the process.

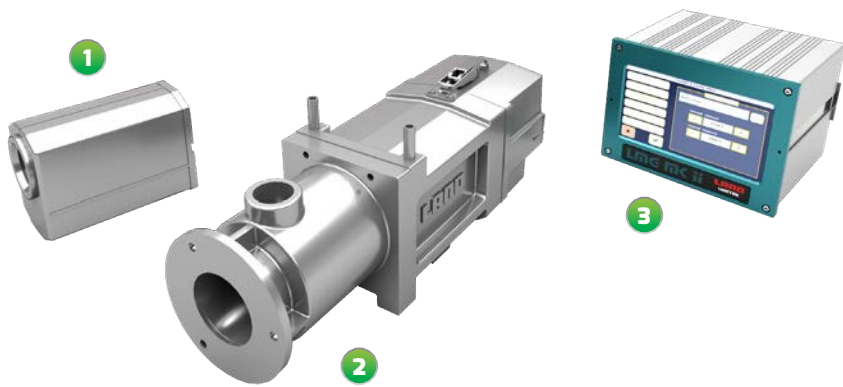
Accurately measuring the liquid metal temperature in the liquid stream is the most direct place to get the temperature reading of the poured parts, as the liquid metal is typically directly running into the moulds. As the stream is not very stable and its surface is changing

during the pouring process, a special system is needed to accurately measure the liquid metal temperature and obtain the most repeatable readings.

The application specific Auto Pour Pyrometer System delivers these readings - actually one accurate value, which is measured and calculated for each pouring, by detecting the start and end of the pouring process, monitoring and outputting these readings for further analyse and storage.

### HOW IT WORKS ▼





# SPECIFICATION & DESIGN

## 1: AUTO POUR APPLICATION PYROMETER

High precision spot application pyrometer, measuring range 600 to 1600 °C (1112 to 2912 °F) for fast, accurate and reliable results.

## 3: SIGNAL PROCESSOR & DISPLAY

High precision, multifunction, smart auto pour signal processor, with graphical display for improved measurement accuracy, usability and multiple interfacing.

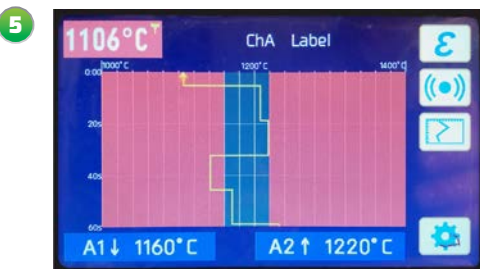
## 2: PROTECTIVE MOUNTING

Air/Water cooling jacket for protection of pyrometer from excessive heat and air purge unit for maintaining clean lens/window.

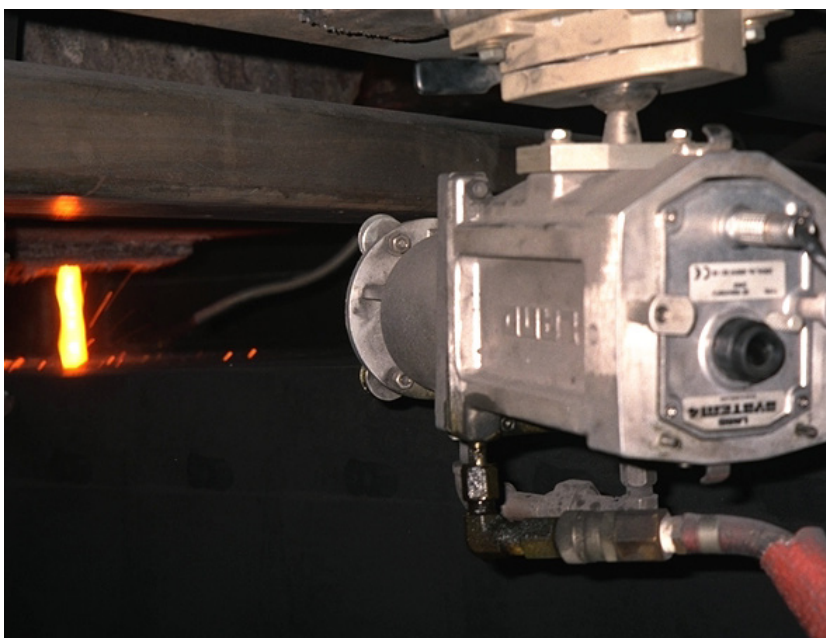
## 4: SPOTVIEWER / SPOTPRO SOFTWARE

Real time temperature and alarm display with logging on temperature change. RS485/USB-converter needed (optional)

## 5: SIGNAL PROCESSOR DISPLAY



## AUTO POUR SYSTEM IN THE FOUNDRY



# FEATURES & BENEFITS

**Reduces operating costs** while improving casting quality.

**Non-contact measurement** does not interrupt casting process.

**Operates at a wavelength which is specially selected to ensure maximum freedom** from errors due to variable emissivity and atmospheric absorption.

**Simple alignment** with adjustable focus and through the lens sighting.

**Analog and alarm outputs provide** process control and automated notification

of out of range metal temperatures.

**Graphical and numerical displays** to monitor metals temperatures.

**Continuous monitoring** of molten metal in the foundry.

**Rugged pyrometer housing** withstands harsh foundry environments.

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## SPECIFICATIONS

### Auto Pour Application Pyrometer

Temperature Range	600 to 1600 °C / 1112 to 2912 °F
Wavelength	Advanced spectral filtering for liquid metals (SWIR)
Response Time <sup>1</sup>	15 ms
Accuracy <sup>2</sup>	0.65 % K
Field of View	50:1
Ambient Temperature	0 to 50 °C / 32 to 122 °F
Interchangeability	0.25 % K
Repeatability	1K
Stability	< 0.05 % K / K

### Landmark Graphic MkII (Auto Pour)

Accuracy	0.12 % reading
Operational Mode	AUTO POUR
Response Time	10 ms
Alarms	High or Low, NO & NC relays, 2 per channel
Options	Up to four I/O cards, Math Card, Processor Protection cover, Upgrade Kits

<sup>1</sup> Time quoted to 95 % step change; <sup>2</sup> Accuracy quoted to ITS90

**AMECARE**<sup>®</sup>  
PERFORMANCE SERVICES  
AMETEK Land's AMECare Performance Services ensure peak performance and maximum return on investment over the life of your equipment.

We will deliver this by:

- Proactively maintaining your equipment to maximize availability.
- Optimizing solutions to meet your unique applications.
- Enhancing user skills by providing access to product and application experts.

AMETEK Land's global service network provides unparalleled after-sales services to ensure you get the best performance and value from your AMETEK Land products. Our dedicated service centre teams and on-site engineers are trained to deliver the highest standard of commissioning, maintenance and after-sales support.



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[www.ametek-land.com](http://www.ametek-land.com)



[land.enquiry@ametek.com](mailto:land.enquiry@ametek.com)



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