

Measuring and controlling temperature is the single most important function of any extruder. Light metal extrusion, good or bad, is impossible without temperature control. An excellent remote optical pyrometer does not ensure maximum productivity, but maximum productivity is impossible without one.

PURPOSE

- To measure and control temperature to achieve maximum productivity

FUNCTION

An effective remote optical pyrometer focused on the press exit is absolutely essential in order to approach isothermal extrusion and maximum productivity.

There is one location where close temperature measurement and control is virtually essential. That is at the exit of the press. Maximum productivity depends on optimum ram speed which can only be achieved with isothermal extrusion. This requires continual and accurate measurement of exit temperature in order to adjust the ram speed accordingly... keeping the exit temperature just below the critical point of surface deterioration.

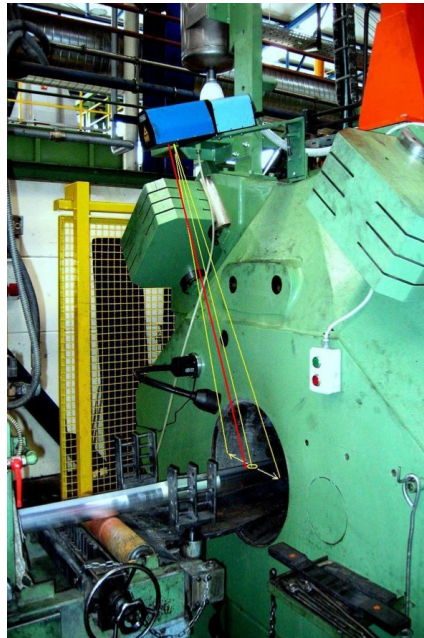
Another location where temperature measurement and control is necessary for maximum productivity is at the billet furnace exit, or just before billet loading. This benefits the extruder by ensuring that extrusion begins at optimal temperature for maximum press speed. It prevents a billet that is too hot or too cold from entering the press.

Every reasonable effort should be made to insure that the billet enters the press at the correct temperature.



PS3000 Scanning System

- Plug & Play, simple to install
- Fully automatic tracking
- Manual option for camera aiming
- Allows for continuous reliable temperature measurement
- Tracking of individual profile temperatures in multi-cavity die



Features:

- Selection of scanning modes:
 - hottest point
 - smooth point
 - program point (pendulum mode)
 - continuous scanning (pendulum)
- Adjustable scanning range up to $\pm 25^\circ$
- Adjustable scanning step from 0.1 - 5°
- Adjustable scanning time
- Minimal working distance 1 meter
- Maximal working distance target size dependence
- Metal processing application for profile, billet, strip and bar

Infrared Thermometer

AE3000 - for aluminum profile at the die exit

AB3000 - for aluminum billet

- Simple to use; no calibrations required
- High accuracy; 1% in real site conditions
- Capable of measuring targets with variable emissivity
- Measures through smoke, dust, water vapor, etc.
- Rugged design
- Full range of accessories
- Wide range of built-in functions



Aluminum profile sensor with scanner



Performance:

- Temperature range: 350 - 650°C (660 - 1200°F)
- Emissivity range: 0.1 - 1.0
- Response time: 0.1 - 10 sec.
- Default value: 0.5 sec
- Accuracy and repeatability: $\pm 1\%$

BENEFITS of the Castool Remote Optical Pyrometers

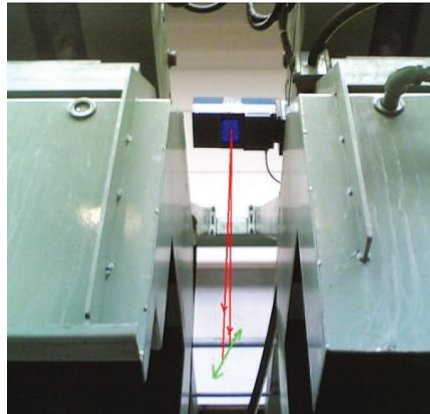
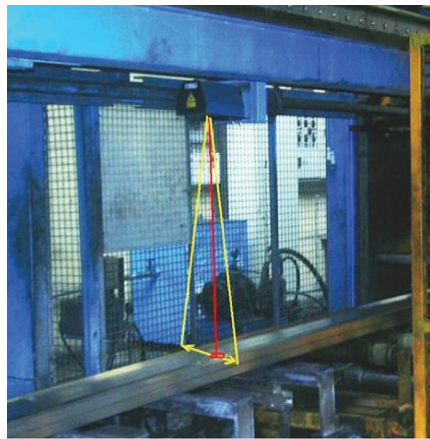
- The ability to measure and control temperature to achieve maximum productivity
- Continual and accurate measurement to keep the exit temperature just below critical point of surface deterioration
- Essential in order to approach isothermal extrusion

With Remote Optical Pyrometers, Castool again sets a new standard of excellence in the extrusion industry.

Results may vary depending on individual press characteristics and setup.



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Infrared Thermometer

AC3000 - for aluminum extrusion, hot rolling, continuous casting, forging

- Simple to use; no calibrations required
- High accuracy; 1% in real site conditions
- Capable of measuring targets with variable emissivity
- Measures through smoke, dust, water vapor, etc.
- Rugged design
- Full range of accessories
- Wide range of built-in functions

Performance:

- Temperature range: 200 - 600°C (390 - 1110°F)
- Emissivity range: 0.1 - 1.0
- Response time: 0.1 - 10 sec.
- Default value: 0.5 sec
- Accuracy and repeatability: $\pm 1\%$

P110 Display Unit

Features:

- Single channel display
- Displays temperature and emissivity
- Large digits can be seen from a distance

Performance:

- Response time: 51mSec
- Data input: RS422, RS232, RS485
- Optional - AS3000 application selector



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CASTOOL MAKES EXTRUSION BETTER

