SAPSOL

Break-Out Prevention System
Simple and easy way to reduce casting incidents at your caster

Technical specifications

- **Measuring chain:**
  - Thermocouples:
    - K-type, with unique design for horizontal mounting
    - Installation on 2 rows for break out prevention function
    - Possibility to equip with additional rows for thermal mapping
  - Analysis, HMI and storage computer:
    - 1 PC DELL Workstation per strand
    - Software:
      - SDS-7 sticking detection program, with auto-healing management
      - SUP-7 supervisor program for user interface, incl. thermal monitoring display
    - Storage capacity: typically 1 year.

Features

- Can fit to upgrade existing or equip new caster.
- Horizontal or vertical mounting of thermocouples for more flexibility.
- Thermocouple-spring design to guarantee the contact with copper plate.
- Special algorithm feature to minimize false alarm rate.
- Includes auto-healing management for minimum operator involvement.
- Thermocouples can be easily replaced individually, without dismantling the whole plate / water jacket arrangement for maximum system operability.
- Only one thermocouple design valid for all mould plates for spare savings.
- Plugs on moulds to avoid cable hanging to mould when it is removed.
- Tools to facilitate checking the system operability before sequence.
- Possibility of assistance contract to maximize system performance, throughout progressive casting program evolution.

Software functions

1. Sticking detection
2. Healing under operator’s control or auto-healing
3. Simple, intuitive Human-Machine Interface
4. Simulation program to check the system

Typical performance observed

- Over 95% of sticking are alarmed
- The false alarm rate is minimized to some few events per month, per strand

FLAME TEST SERT TST test program

PC laptop computer provided by the buyer

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Typical V-shape after sticker observed on slab and on Thermograph display

Wide face equipped with thermocouples

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