CHENG DU

P&G IWS 5.0

全力以赴 全域突破

Project Name:
CD PSG JY Horizontal Sealing Healing Rod Upgrading

Project Leader： Zhang Long
Dept.： PSG

Background

The horizontal sealing temperature fluctuation reaches ±10° during the first 10 minutes after shutdown. Causing:

1) Sealing quality risk.
2) Centerline OOL and trigger machine stops. Stops 0.13#/day.
3) Operator's touch (additional TAMU check and product check/machine restore after stop) 5# per line per day.

Based on sealing bar upgrading, further study sealing rod mechanism and improvement opportunity.

What was done?

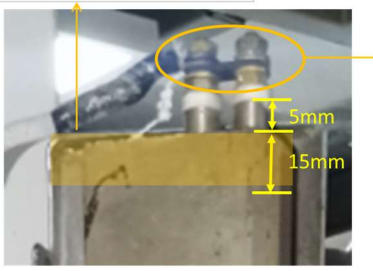
- Sealing rods design improvement: select single-ended imported heating tube, with a length 2cm longer than the sealing bar. Expose the cold end of the heating tube beyond the pad to ensure effective heating of the internal heating rod, maintaining pad temperature within ±1°C. Imported heating tubes offer extended service life, eliminating terminal replacement needs and reducing maintenance costs by 4500 RMB/year. This translates to 28 fewer PM02 Touch maintenance sessions/630 minutes per year.
- Upgrade the temperature control system with PID precision control to maintain stable temperature within the set range.

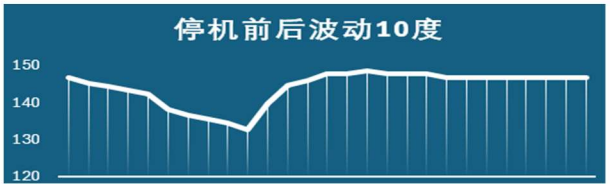
How it works?

Before

2 heating rods in parallel and connected by a copper terminal. Copper terminal risk on oxidation fracture because of high current. Need monthly replacement.

15mm cod end inside sealing bar, Temperature 10~15° lower than middle part。

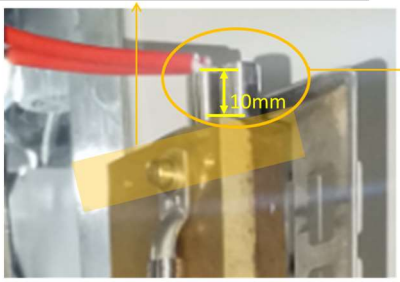


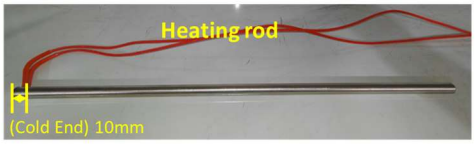


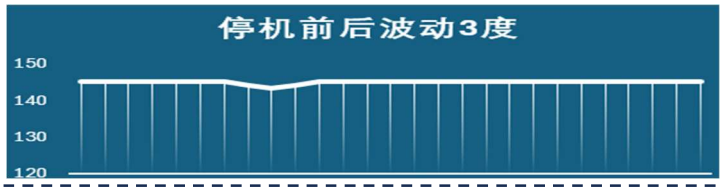
After

2 heating rods in parallel and connected in cable channel, no copper terminal, maintenance prolong to above 1.5 year.

Cold end Change to one-side 10mm, sealing bar edge temperature ≤3° versus middle part.







500 #/Month
Touch#

630min /Month
Touch Effort

4.5MRMB
MOE&MU