



S/N 4082 SYNOPSIS SPECIFICATION
FOR
NMR-PPG-16-243355-2400
ELECTRIC PUSHER PLATE TUNNEL KILN

- Designed for maximum operating temperature of 2,400°F (1,316°C) in air.
- Designed for pusher plates 13" wide x 13" long x 1-1/8" thick.
- The overall height of the load and pusher plate above the hearth plate is 12-5/8".
- The kiln proper is approximately 33'-2" in length, consisting of a 9'-2" preheat section, 15'-0" high heat zone, and 9'-0" cooling zone.
- The overall system length is 42'-1" and the overall system width is 13'-2".
- Side access vestibules, each with a vertical lift door.
- The kiln shell is steel sheet, rigidly supported by structural members and painted gray.
- Refractory construction is castable shapes and graded layers of IFB.
- Purge air blower for the preheat and high heat zones.
- Closed loop system with cross transfer tracks and return track. Hydraulic cylinders and hydraulic power unit are provided.
- Push stroke of 60" every sixty minutes.
- The return track is positioned on the left side of the kiln when standing on the kiln charging end looking towards the discharge end.
- The automation system is controlled by limit switch logic, utilizing an Allen-Bradley SLC 150. Temperature control is through a Barber-Colman Cimac 2.
- Input power is 480/3/60, 600 KVA, stepdown transformer 1,000 amp circuit breaker.
- The kiln is heated by silicon carbide heating elements. All elements are horizontally oriented and are positioned above the load and below the hearth.
- Sixteen baffled control zones are provided.
- Each power control zone for the SiC elements has a dedicated contactor, phase-angle-fired SCR with power feedback and ammeter.
- Six overtemperature limiters are provided for the kiln.
- Sixteen foot long return track dryer section includes SS316 shell, refractory lining, internal hot air duct, duct burner with powered exhaust fan, Barber-Colman 560 setpoint temperature controller, and overtemperature limiter. Maximum dryer temperature is 600°F (315°C). Not sure this dryer is still part of the system.
- Auxiliary cooling is provided on the return track.
- Three NEMA-12 power control cabinets.
- One NEMA-12 instrument enclosure.
- System weighs 57,300 pounds.