

TECHNICAL DATA

Furnace Tracker®

for Slab and Billet Reheat

Built for the steel industry, the Datapaq® slab and billet reheat systems are used to measure temperature depths as the system travels through the furnace.

The system consists of 10 or 20 channel data loggers, which are protected by a special low height “phased evaporation” insulation system. This is designed to keep the data logger at a stable operating temperature, while the temperature in the furnace may reach 1250 °C (2282 °F).

The powerful, yet easy-to-use Insight™ analysis software quickly converts raw data into meaningful information. Detailed graphical information gives a complete picture of your furnace. Complex calculations are simplified, allowing quick and comprehensive analysis of the heat cycle.

System Benefits

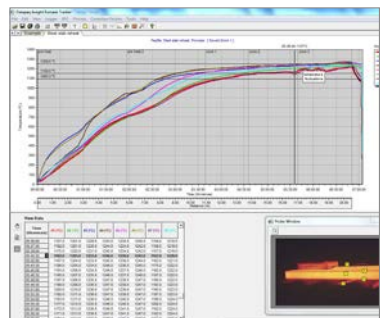
- One complete solution including data logger, thermal barrier, thermocouples and software, as well as detailed drawings and guides for setup and usage
- Ensures slab achieves correct drop out temperature throughout thickness
- Helps to optimize processes, reduce energy consumption, increase throughput and minimize scale
- Accurate results for verifying and updating mathematical furnace control models

System Features

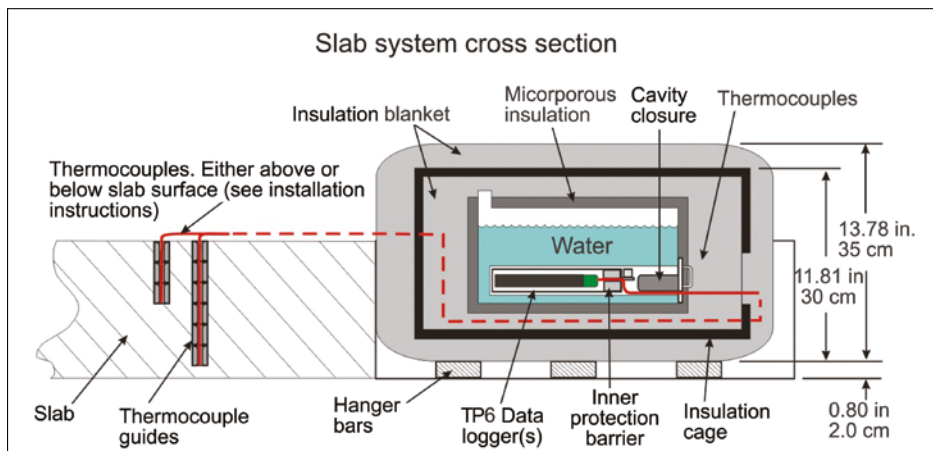
- Dedicated 20 channel data logger designed for ease of use and rapid setup – front loaded 20 channel measurements
- Designed to travel through the furnace with the steel slab, no need for trailing thermocouples
- High accuracy data logger ± 0.3 °C (± 0.5 °F) with optional RF telemetry for real time data
- Starts automatically upon entering the furnace by user determined time or temperature trigger
- Easy to set up and use with replaceable insulation
- High thermal capacity barrier withstands delays during the trial, due to roll changes



Furnace Tracker system for billet re-heat furnaces



Insight software



Technical Specifications

Data Logger

	TP6126	TP6326
Temperature range	-100 °C to 1370 °C (-148 °F to 2498 °F)	
Connectivity	USB or Bluetooth®	
Max. operating temperature	110 °C (230 °F)	
Memory capacity	4 million data points	
Number of channels	10	20
Sampling interval	0.1 sec – 50 min no telemetry 2 sec – 50 min RF telemetry	
Logger accuracy	±0.3 °C (±0.5 °F)	
Battery	Lithium AA replaceable	
Battery life	1 min sample interval 100 °C (212 °F) = 500 hours	1 min sample interval 100 °C (212 °F) = 450 hours
Thermocouple type	K (other types available)	



Datapaq TP6 data loggers

Evaporative Thermal Barriers

The thermal barrier contains various layers of insulation, which slow down the passage of heat and create a temperature gradient within the system. The first insulation layer consists of alumina fiber blanket, which has a maximum operating temperature of 1600°C (2912°F) and protects the evaporative thermal barrier. Inside the thermal barrier, water slowly boils off and creates an environment where the temperature does not exceed 100°C (212°F), the maximum operating temperature of the data loggers. The inner insulation layers contained in the evaporative water jacket are structured to significantly boost the thermal capacity of the overall system, ensuring optimum performance during the process. The evaporative thermal barrier features “floating plate” technology to minimize distortion at high temperatures.



TB4284 rehear barrier

	TB4272	TB4284	TB4066	TB4203
Dimensions (L×W×H)	687 × 575 × 295 mm 27 × 22,6 × 11,8 in	687 × 575 × 295 mm 27 × 22,6 × 11,8 in	550 × 250 × 250 mm (21.65 × 9.85 × 9.85 in)	670 × 350 × 250 mm (26.37 × 13.77 × 9.85 in)
Thermal duration	9 hours at 1200 °C (2192 °F)	9 hours at 1200 °C (2192 °F)	3.5 hours at 1250 °C (2282 °F)	5 hours at 1250 °C (2282 °F)
Maximum temperature	1250 °C (2282 °F)			
Thermocouple type	K type / N type			
Number of channels	1 or 2 × 10 channel loggers	1 × 20 channel logger	1 × 10 channel logger	

Note: Other models available, contact us for details.

TP6 Radio Telemetry

- Improve efficiency of process optimization – use live data to view the effect of any process parameter changes on the temperature profile instantly
- Live real-time analysis of process data and review against process set-up (zones, temperature set-points, overlays)
- Powerful radio signal designed for operation even in noisiest environments

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Worldwide Service

Fluke Process Instruments offers services, including repair and calibration. For more information, contact your local office.

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