

PTC DOWNHOLE TOOL CALIBRATION OVENS



THRIVING ON INNOVATION

Despatch Industries has worked at the forefront of thermal processing technology for more than a century. The company's success is based on innovation, with an unwavering commitment to quality and reliability. Despatch has grown to become the global supplier of thermal processing equipment to some of the world's most sophisticated industries.

Despatch ovens are known for exceptional performance, process quality and maximum equipment uptime. Today's competitive global market places many demands on our customers. Time and again these companies return to Despatch for creative solutions that offer a competitive edge and drive their business into the future.

◆ PTC Downhole Tool Calibration Ovens

PTC ovens are specially designed for downhole drilling tools. Burn-in testing is done to make sure the electronics can operate accurately at elevated temperatures. In the field, these ovens are used for periodic calibration of the electronics on the drill tool. Downhole drilling tools perform many functions.

Video Inspections provide a continuous, permanent visual record of the well casing, screen, or open hole. A video camera built into a waterproof stainless steel housing is lowered into the well via a triple-armored coaxial cable. The image is transmitted back via the cable to a VHS recorder and monitor at the surface. This arrangement provides a permanent videotape recording, as well as real-time viewing, which facilitates detailed inspections of features of interest.

Geophysical Logging (sometimes erroneously called "electric logging") is a generic term encompassing a wide variety of techniques. Simply put, geophysical logging is the measurement of various physical parameters by the lowering of a probe or sonde containing sensors into a well or borehole. These parameters can then be used to evaluate the geology and well construction.

Natural Gamma Ray Logging is done by measuring the amount of emitted gamma radiation as a function of depth so we can paint an accurate "picture" of the nature of the material penetrated by the well. Electric Logging uses the marked differences in electrical properties between fine-grained sediments (shale, clay and silt) and coarser-grained material (sandstone, sand and gravel), to identify stratigraphic units from logs of electrical resistivity and natural electric potentials. Caliper Logging is simply a record of the changes in hole diameter with depth.

Despatch's unique chamber size and force-convected airflow provide uniform heat over the length of the tool. Multiple ovens can be connected end-to-end to accommodate any required length. The marinite end caps can be machined to insert instruments or tooling. A digital, three-mode PID control allows precise temperature control while a separate high-limit control with manual reset provides over-temperature protection. Designed with silicone door seals and positive-latching clamps to hold the door securely in place, the PTC ovens are also provided with a dolly for easy moving.

We offer two standard top-loading sizes and can build to special requirements including a front-loading design. We also offer a non-magnetic, non-metallic version.



NON-MAGNETIC,
NON-CONDUCTIVE OPTION



FRONT-LOADING OPTION

For burn-in and qualification testing of downhole electronic logging equipment

STANDARD FEATURES:

- ◆ Temperatures up to 260°C (500°F)
- ◆ 2.4 or 3.6 m (8 or 12 ft) chamber length
- ◆ Removable end caps to allow several ovens to be connected end-to-end
- ◆ Horizontal airflow
- ◆ Digital, three-mode PID control for precise temperature control
- ◆ High-limit control with manual reset for protection against over-temperature
- ◆ Silicone door seals and positive latching clamps for security

OPTIONS:

- ◆ Non-magnetic, non-metallic models available
- ◆ Front-load model available
- ◆ Programmable controller
- ◆ Custom configurations available

NON-MAGNETIC FEATURES

- ◆ Fiberglass oven body construction with fiberglass structural supports
- ◆ 3.6, 4.5 and 7.3 m (12, 15 and 24 ft) lengths
- ◆ Temperatures up to 180°C (356°F)
- ◆ Non-magnetic/non-metallic model
- ◆ High-velocity vertical-down airflow for uniform airflow, even with varying load conditions



Small Footprint – The PTC ovens are designed with fans and controls located below the work chamber to minimize floor space, which is at a premium in the field offices where the ovens are most commonly used.

Reliability/Repeatability – The PTC offer consistent, repeatable performance in a small package. A rugged design allows for long term reliability and all units are low maintenance.

Adaptable – Removable ends allow multiple units to be connected together for use with longer tools.

PTC STANDARD TOP-LOAD	PTC1-27	PTC1-40
PHYSICAL SPECIFICATIONS		
Work chamber dimensions (width x depth x height)	96 x 8 x 6 in. 243.8 x 20.3 x 15.2 cm	144 x 8 x 6 in. 365.8 x 20.3 x 15.2 cm
Overall dimensions (width x depth x height) *Does not include dolly which adds 22.9 cm (9 inches)	100 x 24 x 24* in. 254 x 60.4 x 60.4* cm	148 x 26 x 26* in. 375.9 x 66 x 66* cm
Workspace length (Custom lengths available)	243.8 cm (8 ft)	365.8 cm (12 ft)
Single-phase voltage (Additional options available)	208v or 240v	208v or 240v
Approximate weight	1100 lbs / 500 kg	1800 lbs / 820 kg
FUNCTIONAL SPECIFICATIONS		
Operating range Based on 20° C (68° F) ambient temperature	51° C to 260° C (125° F to 500° F)	51° C to 260° C (125° F to 500° F)
Chamber temperature uniformity	+/- 2.8° C (5° F)	+/- 2.8° C (5° F)
Recirculating system- motor	1/3 HP - 400 CFM (189 LPS)	1/3 HP - 600 CFM (283.2 LPS)
Heater capacity	9 kW	12 kW

PTC NON-MAGNETIC	3.6M (12 FT) LENGTH	4.5M (15 FT) LENGTH	7.3M (24 FT) LENGTH
PHYSICAL SPECIFICATIONS			
Work chamber dimensions (width x depth x height)	144 x 7 x 12 in. 365.8 x 17.8 x 30.5 cm	180 x 7 x 12 in. 457.2 x 17.8 x 30.5 cm	288 x 9 x 12 in. 731.5 x 22.9 x 30.5 cm
Overall dimensions (width x depth x height) *Does not include dolly which adds 22.9 cm (9 inches)	181 x 57 x 63.5* in. 459.7 x 144.8 x 161.3* cm	221 x 60 x 64.5* in. 561.3 x 152.4 x 163.8* cm	326.5 x 61.5 x 70.5* in. 829.3 x 156.2 x 179.1* cm
Workspace length (Custom lengths available)	365.8 cm (12 ft)	457.2 cm (15 ft)	731.5 cm (24 ft)
Single-phase voltage (Additional options available)	208v or 240v	208v or 240v	208v or 240v
FUNCTIONAL SPECIFICATIONS			
Operating range Based on 20° C (68° F) ambient temperature	130° C to 180° C (266° F to 356° F)	130° C to 180° C (266° F to 356° F)	130° C to 180° C (266° F to 356° F)
Chamber temperature uniformity	+/- 5° F (2.8° C)	+/- 5° F (2.8° C)	+/- 5° F (2.8° C)
Recirculating fan motor (Custom sizes available)	1 HP - 1100 CFM (519 LPS)	3 HP - 2000 CFM (944 LPS)	5 HP - 3600 CFM (1699 LPS)
Heater capacity (Other sizes available)	12 kW	16 kW	16 kW

PTC models are not to be used with flammable solvents, materials or enclosed containers. If your process involves flammable solvents, consult the factory.

SERVICE AND TECHNICAL SUPPORT

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