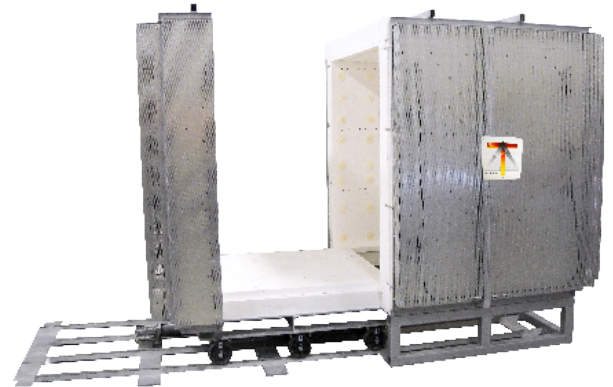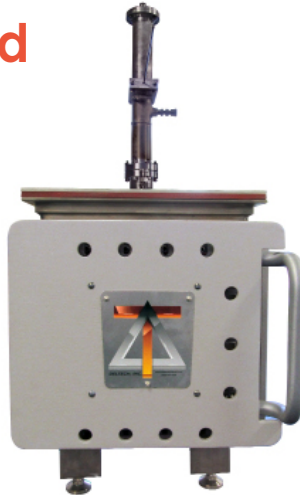# Front Loading

1500 °C −1800 °C

Deltech Furnaces

ISO 9001:2015 certified

- More robust than typical front load furnaces. One outstanding difference is our special laminate door design, featuring the highest quality materials available and the structure to ensure long life for this most vulnerable part of any front loader

- The doors can be manual or power operated, side hinged, guillotine, or "swing", a design in which the counterbalanced door swings up and away from the furnace. You may specify your preferred design or we will make recommendations based on engineering efficiency and operator safety

- Sizes from benchtop to production scale. Specify your desired work space size or select from one of our standard configurations.

- Cool exteriors for operator safety. Convection cooling design eliminates the need for cooling fans

- Sustained operating temperatures up to 1800 degrees Celsius

- The highest quality insulation materials

- The highest quality wire wound, silicon carbide, or molydisilicide elements depending upon the maximum desired furnace operating temperature

- Ceramic linings for corrosion resistance for applications such as glass melting

- Optional features include forced air and vent flaps to facilitate binder burnout, speed cooling, or increase air or gas circulation to enhance product quality

- Atmosphere Envelope front loading furnaces allow processing in inert atmospheres and up to 5% hydrogen mixtures. Pressures up to 0.022 atmosphere. Stainless steel shells. Optional vacuum assisted evacuation and backfill. Optional gas mixing and delivery systems

Model	Workspace Size	Furnace Dimensions	Power Requirements	Weight
DT-FL-6	6" cubed 152 mm cubed	20" x 20" x 21" 51cm x 51cm x 54cm	3 kW	90 LB / 41 KG
DT-FL-8	8" cubed 203mm cubed	22" x 21" x 23" 56cm" x 54cm x 59cm	6 kW	160 LB / 73 KG
DT-FL-10	10" cubed 254mm cubed	24" x 22" x 25" 61cm x 56cm x 64cm	6 kW	200 LB / 91 KG
DT-FL-12	12 " cubed 305mm cubed	26" x 25" x 29" 66cm x 64cm x 77cm	15 kW	250 LB / 114 KG
DT-FL-16	16" cubed 406mm cubed	35" x 33" x 36" 89cm x 84cm x 92cm	20 kW	450 LB / 205 KG
DT-FL-18	18" cubed 406mm cubed	37" x 35" x39" 94cm x 89cm x 99cm	36 kW	600 LB / 273 KG
DT-FL-24	24" cubed 610mm cubed	41" x 38" x 47" 104cm x 97cm x 120cm	50 kW	850 LB / 386 KG

Atmosphere Envelope (AE)*

Model	Workspace Size	Furnace Dimensions	Power Requirements	Weight
DT-FL-AE-6	6" cubed 152 mm cubed	23" x 21" x 25" 59cm x 54cm x 64cm	3 kW	175 LB / 80 KG
DT-FL-AE-8	8" cubed 203mm cubed	26" x 23" x 27" 66cm" x 59cm x 69cm	6 kW	250 LB / 114 KG
DT-FL-AE-10	10" cubed 254mm cubed	28" x 25" x 31" 71cm x 64cm x 79cm	6 kW	325 LB / 148 KG
DT-FL-AE-12	12 " cubed 305mm cubed	36" x 33" x 37" 92cm x 84cm x 94cm	15 kW	450 LB / 205 KG
DT-FL-AE-16	16" cubed 406mm cubed	43" x 38" x 44" 109cm x 97cm x 112cm	20 kW	525 LB / 238 KG
DT-FL-AE-18	18" cubed 406mm cubed	47" x 41" x49" 120cm x 104cm x 125cm	36 kW	750 LB / 340 KG
DT-FL-AE-24	24" cubed 610mm cubed	53" x 47" x 55" 135cm x 120cm x 140cm	50 kW	1000 LB / 454 KG

* Maximum operating temp in inert gases is 100ºC lower than rated furnace temperature due to element limitations.

Not looking for something standard? We are renowned for our custom work.

Control Systems

Every Deltech control system is certified by Intertek to be UL508A compliant. Standard safety features include an emergency stop, door interlocks, safety relay, and isolation switches.

Nema One enclosures with a side hinged front door opening allows easy access to all components.

Eurotherm 3504 autotuning programmable temperature controller is our standard; other controllers are available upon request.

Optional, customized HMI systems (Human Machine Interface) allow remote access and control; data acquisition; and event logging.

Deltech Control Systems Include:

- Control Concepts power controllers.
- Olsun transformers.