

ALL HEAT TREATMENT PROCESSES IN A SINGLE FURNACE

for
TOOLS
PROTOTYPING
R & D
SMALL PRODUCTION RUNS



High Quality Output

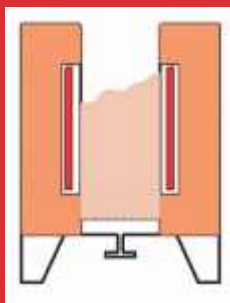
Quick Start Up
& Shut Down

Compact

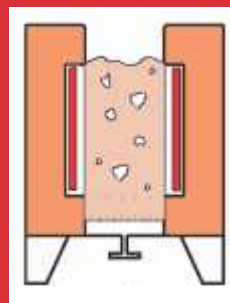
Safe
& Non Polluting

CHAMPION TOOL TREATER

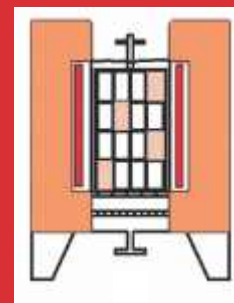
FLUIDISED BED HEAT TREATING



Sandlike alumina
particles in a retort



Air/gas mixture
causes particles to
float (fluidisation)

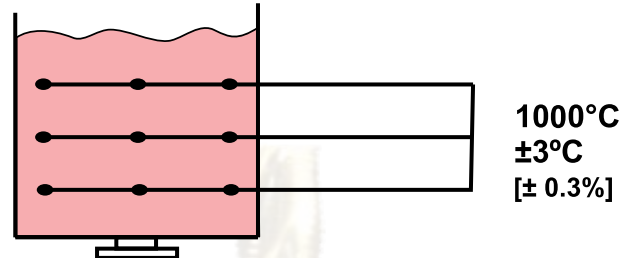
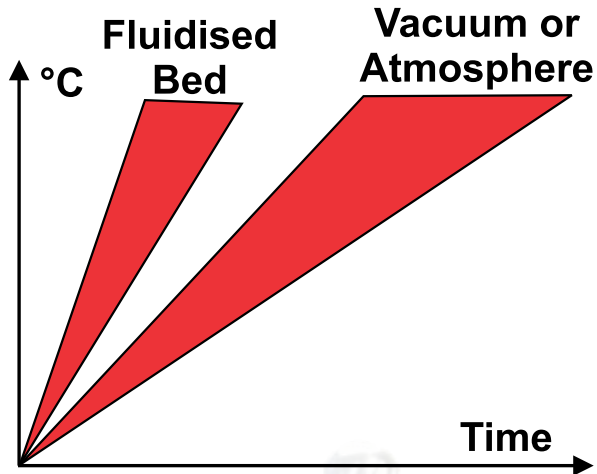


Charge basket
immersed in a
fluidised bed

Fluidised bed furnaces employ an alloy retort filled with sandlike alumina particles. When a controlled stream of air or gas is passed upward through a distributor below the retort, the particles float on a cushion of this air/gas stream and move around turbulently without elutriation. The now "fluidised" bed looks and behaves remarkably like a molten salt bath. When heated (extremely or internally) and when the fluidising gas mixture is also the required heat treatment atmosphere (neutral or reactive), the fluidized bed becomes an excellent heat treatment furnace for components that are immersed into it.

PROPERTIES

RAPID & UNIFORM HEAT TRANSFER



FLEXIBILITY

Any Temp. (Ambient to 1080°C) + Any Atmosphere (Neutral, Carburising or Nitriding) = All heat treatment processes (Hardening, Carburising, Carbonitriding, Nitriding etc.)

Process	Air	Nitrogen	LPG	Ammonia
Carburise I	*	*	*	
Carburise II		*	*	
Carbonitride	*		*	*
Nitride		*		*
Nitrocarburise	*		*	*
Neutral Harden I		*	*	
Neutral Harden II	*		*	

4 MODELS FOR MOST APPLICATIONS (LARGER FURNACES ON REQUEST)

CHAMP TOOL TREATER MODEL ⁽¹⁾	BATCH CAPACITY ⁽²⁾ Kg, gross	CONNECTED LOAD (kW)	OVERALL DIMENSIONS(mm)				
			Ø ⁽³⁾	D ⁽³⁾	A	B	H
FBTT.1080.15/30	10	9	150	300	1800	1400	2580
FBTT.1080.20/50	25	15	200	500	2000	1600	3030
FBTT.1080.30/60	65	24	300	600	2100	1700	3382
FBTT.1080.40/60	115	30	400	600	3000	2199	3510

1) TMax. 1080°C. With gas streams for neutral hardening. Optional module for case hardening.

2) Based on coining punches. Actual capacity depends on component geometry.

3) Retort inner dia and usable bed depth. Insertion clearance of about 30 – 50 mm around the basket will be required.

80%
INCOME TAX
DEPRECIATION


FLUIDTHERM
Technology

www.fluidtherm.com email: info@fluidtherm.com

