

FRICION-AIRE

Three HS Series Models



**U.L. listed for Class I,
Group D operation
...the first and
only ovens that
have this listing**

These three models have been listed by Underwriter's Laboratories for operation in Class I, Group D hazardous locations. They are ideally suited for the testing and processing of hazardous materials, paints, solvents and lacquers. There are no heating elements in the chamber and no inherent hot spots to create potential danger. Tests show that load temperature follows closely behind chamber temperature. If the application calls for the processing of hazardous materials over extended periods, the load temperature and chamber temperature will be practically equal all of the time. When chamber and load reach complete equilibrium they will remain so indefinitely until the temperature is deliberately changed. Even if spillage of flammables inside the chamber occurs, danger is minimized since any surface the liquid encounters is only as hot as the interior environment.

Typical operating characteristics

Temperature range:
+ 25 C above ambient to +150 C (302 F)

Typical air temperature uniformity:
at + 100 C: ± 0.5 C

Run up time: (no load)
to + 150 C: 120 minutes

Cool down time: (no load)
to +50 C: 30 minutes

Control accuracy: ± 0.5 C

Drift: (over 24-hour period)
at + 50 C: ± 1 C
at + 100 C: ± 0.75 C
at + 150 C: ± 0.50 C

Average velocity: (adjustable)
Maximum: 400/FPM
Minimum: 100/FPM

Model Number	Inside Dimensions inches (Cm)			Overall Dimensions inches (Cm)			H.P.	*Approx Heating Power (WATTS)	Cubic Feet Capacity	Shippin Weight Lbs(Kg)
	W	x	D x H	W	x	D x H				
† HS-1002	14 (35)	17 (43)	12 (31)	37 (93)	33 (84)	48 (120)	1.0	500	1.3	280 (127)
HS-1202	25 (63)	20 (52)	20 (51)	42 (106)	39 (98)	63 (159)	2.0	1300	5.2	400 (181)
HS-3802	38 (95)	25 (63)	25 (63)	57 (144)	44 (111)	68 (172)	3.0	2000	13.7	520 (236)

† Bench Model. * Voltage - all models: 208/240/480 V 3-Phase / 60 Hz. A.C. Chambers will operate satisfactorily on 208 V 3-Phase / 60 Hz. A.C. when motor is connected for 240 V 3-Phase / 60 Hz. A.C.

Available Option: Electric OTP with Door Switch. All electric - Class1, Group D, non-indicating overtemperature system to act as backup to main overtemperature control. Provides extra protection for critical loads. Note: This option deletes UL listing of unit.

36 cubic foot model for Class I, Group D applications

Typical operating characteristics

Temperature range:
+ 25 C above ambient to +150 C (302 F)

Typical air temperature uniformity:
at + 100 C: ± 0.5 C
at + 150 C: ± 1.0 C

Typical maximum rate of rise: (no load)
to + 150 C: 60 minutes

Maximum rate of cooling: (no load)
to +50 C: 30 minute

Control accuracy: ± 0.5 C

Drift: (over 24-hour period)
at + 50 C: ± 1 C
at + 100 C: ± 0.75 C
at + 150 C: ± 0.50 C

Average velocity: (adjustable)
Maximum: 500/FPM
Minimum: 200/FPM

This model offers all of the operational advantages of the Friction-Aire in a size that meets higher volume processing requirements. Its design resembles the typical batch oven configuration and provides a work chamber volume of 36 cubic feet. It delivers controlled batching temperatures in a range from 25 C above ambient to + 150 C (320 F).

These ovens have been specially engineered to meet the stringent design requirements of Class I, Group D service. They incorporate a relief panel and safety cage centered in the back wall, plus Class I, Group D motors and starters with approved M.I. cable and fittings. An electric non-indicating backup OTP in a Class I, Group D enclosure is furnished as standard on this unit. A Class I, Group D door switch that shuts off the blower when the door is opened is also included as standard.

Model Number	Inside Dimensions inches (Cm)			Overall Dimensions inches (Cm)			H.P.	*Approx Heating Power (WATTS)	Cubic Feet Capacity	Shipping Weight Lbs(Kg)
	W	x D	x H	W	x D	x H				
*HS-362-1	37 (93)	37 (93)	48 (120)	66 (167)	58 (147)	91 (231)	10.0	6500	36.0	2200 (1000)

* Voltage - all models: 208/240/480 V 3-Phase / 60 Hz. A.C. Chambers will operate satisfactorily on 208 V 3-Phase / 60 Hz. A.C. when motor is connected for 240 V. 3-Phase / 60 Hz. A.C.

3 Friction-Aire models in the HS Series for higher temperature operations

Typical operating characteristics

Temperature range:
+ 20 C above ambient to +260 C (500 F)

Typical air temperature uniformity:
at + 100 C: ± 0.5 C
at + 200 C: ± 1.0 C

Typical maximum rate of rise: (no load)
to + 260 C: 140 minutes

Maximum rate of cooling: (no load)
to +50 C: 30 minutes

Control accuracy: ± 0.5 C

Drift: (over 24-hour period)
at + 50 C: ± 1 C
at + 100 C: ± 0.75 C
at + 150 C: ± 0.50 C
at + 200 C: ± 0.50 C

Average velocity: (adjustable)
Maximum: 500/FPM
Minimum: 250/FPM

These ovens are not U.L. listed because of their increased temperature capabilities. They exceed temperatures allowed in a Class I, Group D location, but they have the same basic construction and operating characteristics of the other HS models previously described. An electric non-indicating backup OTP in Class I, Group D enclosure is furnished as standard on these higher temperature units. A Class I, Group D door switch that shuts off the blower when the door is opened is also included as standard.

Model Number	Inside Dimensions inches (Cm)			Overall Dimensions inches (Cm)			H.P.	*Approx. Heating Power (WATTS)	Cubic Feet Capacity	Shipping Weight Lbs(Kg)
	W	x D	x H	W	x D	x H				
*† HS-1004-1	14 (35)	17 (43)	12 (31)	37 (93)	33 (84)	48 (120)	1.0	600	1.3	280 (127)
* HS-1204-1	25 (63)	20 (51)	20 (51)	42 (106)	39 (98)	63 (159)	3.0	2000	5.2	400 (181)
* HS-3804-1	38 (95)	25 (63)	25 (63)	57 (144)	44 (111)	68 (172)	5.0	3000	13.7	520 (236)

† Bench Model. * Voltage - all models: 208/240/480 V 3-Phase / 60 Hz. A.C. Chambers will operate satisfactorily on 208 V. 3-Phase / 60 Hz. A.C. when motor is connected for 240 V./3-Phase /60 Hz. A.C.