LCI Furnaces DIVISION OF LOCHABER CORNWALL INC CONTINUOUS BELT IR FURNACE	EQUIPMENT SPECIFICATIONS	DOC NBR: STD - 802-101401 | R3	
		MODEL: LA-306N	STD & HIGH POWER
		SERIAL NBR: ALL	SIZE A / SHT 1 OF 1

Equipment Model

Model	Base Equipment	Control Zones	Furnace Heated Length	Nominal Furnace Belt Width
LA-306N	Continuous Belt Controlled Atmosphere Furnace	3	30 in 762 mm	6.0 in 152 mm

Equipment Arrangement

Phase	Process	Max	Length	Process Gas	Temperature (typ)
Phase 1	IR Furnace, 3 Zones	1000 °C	30 in 762 mm	CDA, N2, FG	450-950 C
Phase 2	Gas Convective Cooling, Exterior Fan Heat Removal (includes transition tunnel)		45 in 1143 mm	CDA or N2	350-40 C

Process Sections

Function	Name	Location	Length	Process Gas	Temperature (typ)
Product Load	Load Station	Entrance load area	15 in 381 mm	none	ambient
IR Furnace	Entr Baffle/Entrance Eductor	Entrance barrier	15 in 381 mm	N2	80-250 C
	Zone 1	Heating chamber 1	7.5 in 191 mm	N2	80-975 C
	Zone 2	Heating chamber 1	15 in 381 mm	N2	80-975 C
	Zone 3	Heating chamber 1	7.5 in 191 mm	N2	80-975 C
Cooling Section	Trans Tunnel	Heat/cool barrier	15 in 381 mm	N2	80-450 C
	Gas Convection Cooling	Cooling section	30 in 762 mm	N2	55-360 C
Product Unload	Unload Station	Exit unload area	15 in 381 mm	none	ambient
	Frame Adjustment		1 in 21 mm		
	Total		121 in 3070 mm		

Process Gas

(If Single Gas combine GAS1 & GAS2. Dual Gas: GAS 2 = CDA, N2 or FG to furnace heating zones, GAS1=N2 or CDA to all except zones)

	Actual Conditons		Typical Opertion		Typical (low O2 operation)		Max (all flowmeters open)	
Furnace Replenishment Rate			2.0 rep/min		2.6 rep/min		6.1 rep/min	
	Temp °C	Press psi	Typical scfh	Typical sL/m	Typical scfh	Typical sL/m	Max Compressor scfh	Max Compressor sL/m
Gas1 Supply	21	70	177	84	229	108	1,085	512
TOTAL PROCESS GAS			177	84	229	108	1,085	512

Exhaust Gas

	Temp °C	Press in H_2O	Min Flow scfh	Min Flow sL/m	Typical scfh	Typical sL/m	Maximum Exhaust scfh	Maximum Exhaust sL/m
GAS 1 & 2, MIX	200	6	177	84	206	97	348	164

Cabinet Ventilation

Cabinet Ventilation Fans (vent to room or exhaust system)	Flowrate	550 cfm	930 m3/h	550 cfm	930 m3/h
	Temperature	<86°F	<30°C	<122°F	<50°C
Control Cabinet Ventilation Fans (vents to room)	Flowrate	212 cfm	360 m3/h	212 cfm	360 m3/h
	Temperature	<86°F	<30°C	<104°F	<40°C

Transport System

Belt width	6.0 in	152.4 mm	Belt Edge Heater(s):	none
Belt type	Balanced spiral weave			
Product height	2 in (50.8 mm) above belt level.		Baffle plate clearance: 0.5" above belt	
Belt speed range	1-20 ipm		25-500 mm/m	
Conveyor height	36.0 in	+/- 1.5 in adjustable	914.4 mm	+/-38.1 mm adjustable

Electrical System

	Standard				High Power			
Voltage (as configured)	208 Vac	220 Vac	230 Vac	240 Vac	208 Vac	220 Vac	230 Vac	240 Vac
Frequency, Hz	50/60	50/60	50/60	50/60	50/60	50/60	50/60	50/60
Phase	1	1	1	1	1	1	1	1
Power, maximum, kW	14.2	14.2	14.5	14.8	17.2	17.2	17.2	17.2
Current, maximum, A	67 Hz	64.4	62.9	61.6	82.7	78.1	75.4	72.3
Power,kW, operating @ 950 C	7.8	8	8.1	8.3	9.6	9.6	9.6	9.6
Current, A, operating @ 950 C	37.5	36.3	35.4	34.6	46.3	43.8	41.9	40.1
Power, kW, operating @ 425 C	5.8	5.9	6.0	6.2	7.1	7.1	7.1	7.1
Current, A, operating @ 425 C	27.8	26.9	26.2	25.6	34.2	32.3	30.9	29.6

Materials of Construction

Heating Chamber	304 Stainless steel	Cooling	Aluminum, aircraft	Belt	Nichrome V, 80%Ni,20%Cr, <1% Fe
Baffle & Eductor	304 Stainless steel	Belt support	Quartz rod, Quartz tube	Frame	Steel, epoxy or powder coated
Heating element	Quartz, near infrared	Belt Return	UHMW-PE	Cover Panels	18GA steel, epoxy coated

Furnace Dimensions

	Length	Width	Height (floor to stack)	Furnace Sect	Coolg Sectn	Total Net Wt
U.S.	121 in	25 in	80 in +/- 1.5 in	1100 LB	none	1100 LB
Metric	3.1 m	64 cm	203 cm +/- 3.8 cm	500 kg	none	500 kg

Standard Conditions	Pressure	14.7 psia	101.3 kPa	Temperature	70 °F	21 °C