

Product Line	THERMOGLAZE	Frozen Donut Processing	SPEC TG25/ 03-2013
Model	TG25		

## THERMOGLAZE TG25

Belshaw Adamatic's Thermoglaze TG25 is a system that thaws, heats, and glazes pre-fried, frozen donuts with results that equal (and often surpass) the quality of freshly made product.

The TG25 can process all the varieties of frozen donuts currently available including ring donuts, fritters, long johns, cream and jam-filled donuts and many others. Thermoglaze is easy to learn, can be used in front of customers, and requires no ventilation hood.

The TG25 processes approximately 24 dozen donuts per hour. Heating time and temperature can be modified to suit the product.

The TG25 uses half-size 12½" X 17" glazing screens holding 12 typical donuts each.

Donuts (or similar product) are thawed in the 8-shelf Thermolizer, located at the right of the machine, with adjustable temperature and humidity controls. Donuts can be held in the Thermolizer for up to 5 hours, enabling finished donuts to be produced on demand in under 5 minutes. After thawing/holding in the Thermolizer, the screens full of donuts are conveyed through the oven.

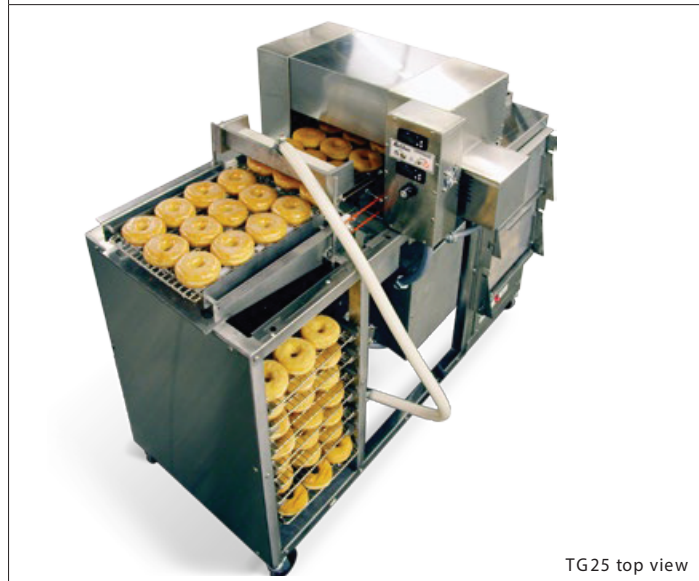
Once heated in the oven, glaze is pumped up to a dispenser which coats each donut with a 1/8" thick curtain of glaze as they pass through.

After glazing the screens can be placed on a cooling rack. On the opposite side to the Thermolizer, an additional 8-shelf storage (usable either for donuts, or screens) is provided.

For iced donuts, the flow of glaze is turned off, and donuts can be iced on a Belshaw H&I-2 or H&I-4 icer.



Thermoglaze TG25. 8-shelf Thermolizer is shown at right (with door open).  
Storage shelves are shown at left.



TG25 top view



TG25 glazing donuts

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### Thermoglaze TG25 Standard Features

- All stainless steel construction
- Capacity 24 dozen donuts/hour at thaw time of 20 minutes
- No ventilation hood or fire suppression system required. (Verify with local authorities)
- Heavy duty glaze pump
- Adjustable speed and temperature
- Quiet operation
- Glaze pump can be switched on/off as required
- Easy to clean oven interior
- Mobile with 4" (25mm) casters
- 8 shelves of storage space below for glaze, screens, etc
- Lock-out feature to prevent machine starting while cleaning is in progress
- ETL Certified, conforms to UL-197, CSA C22.2, and NSF-4

### Integrated Thermolizer features

- 8 shelves. At 12 donuts per screen, the thermolizer holds 96 donuts at a time
- Capacity at thaw time of 20 min: 24 Doz donuts /hour
- Thermostat controlled dry heater for ambient warmth
- Thermostat controlled water element to produce steam
- Blower system for recirculating warm humid air
- 2 clear plexiglass doors
- Powered from central control box on TG25

### CERTIFICATIONS



Certified by ETL to UL-197, UL-710B, NSF-4 and CSA C22.2 standards.

### Screens

- TG25 uses 1/2-size glazing screens 12.5" x 17" (32 x 43 cm), Part #TJ-0001. 20-40 screens recommended

### Electrical data (Requires two electrical connections)

#### Oven/Glazer

- Volts: 220V/60/1
- Amps: 28 A
- Kilowatts: 6.5 KW
- Plug: NEMA #6-50P
- Cord: 72" (1.8m)

#### Thermolizer

- Volts: 220V/60/1
- Amps: 10.5 A
- Kilowatts: 2.3 KW
- Plug: NEMA #6-20P
- Cord: 96" (2.4m)

### Shipping Data

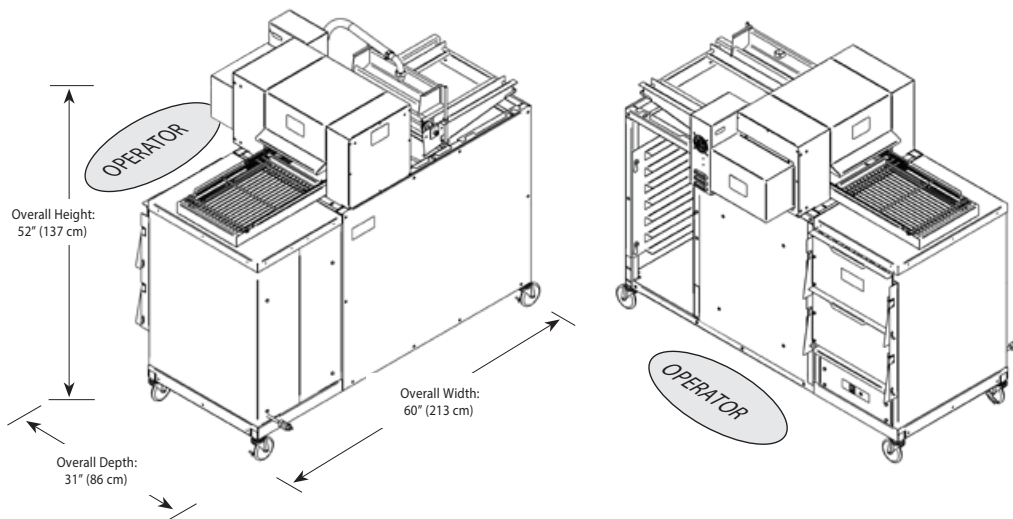
- Shipped on pallet
- Width: 73" (185 cm)
- Depth: 42" (107 cm)
- Height: 62" (158 cm)
- Volume: 110 cubic feet (3.12 cubic meters)
- Shipping weight: 649 lbs (295 kg)
- Freight class: 85

### Optional accessory: H&I-2 or H&I-4 Icer

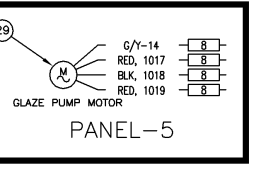
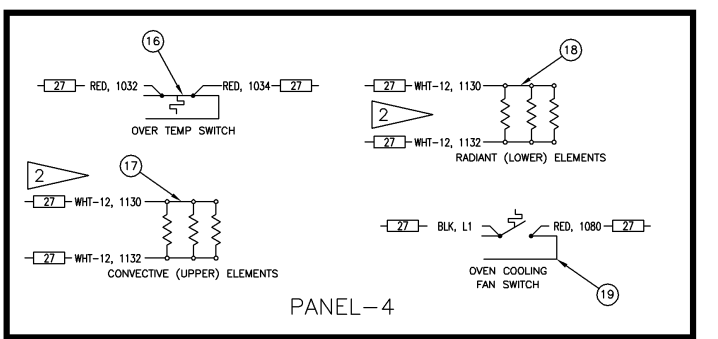
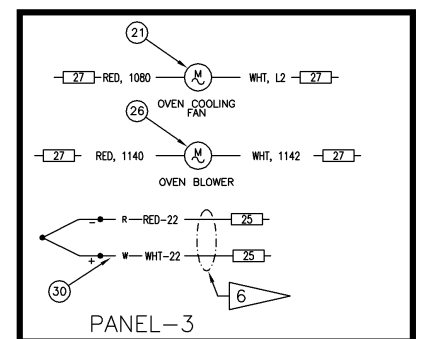
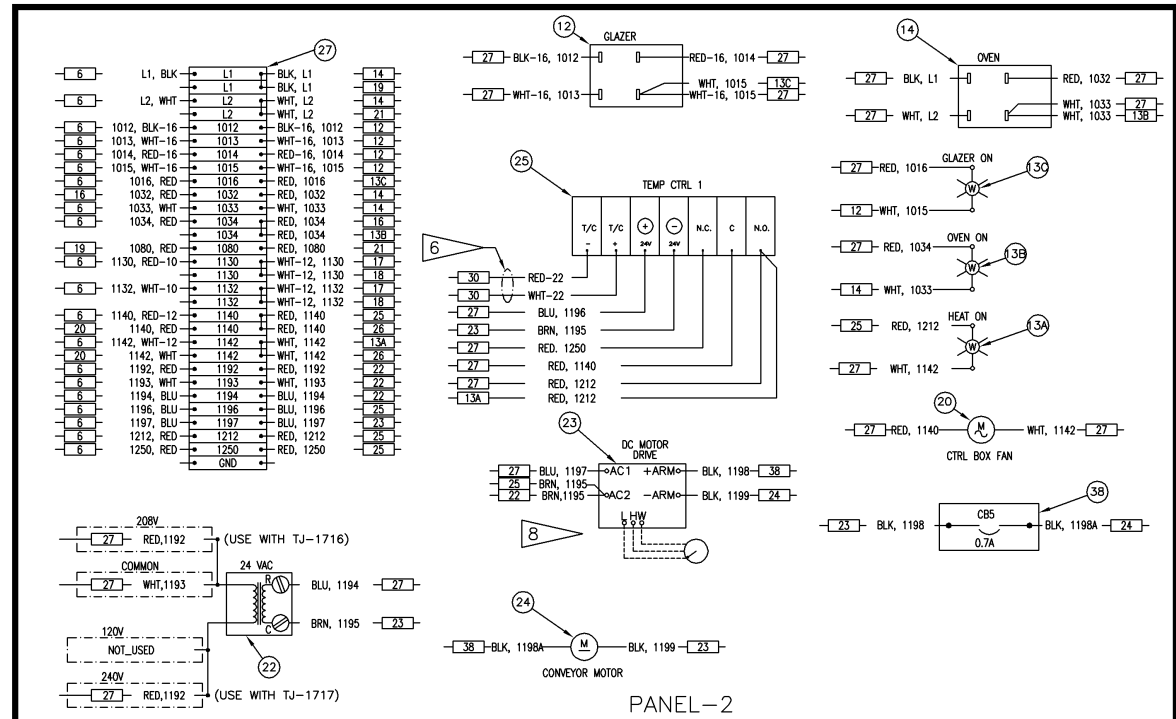
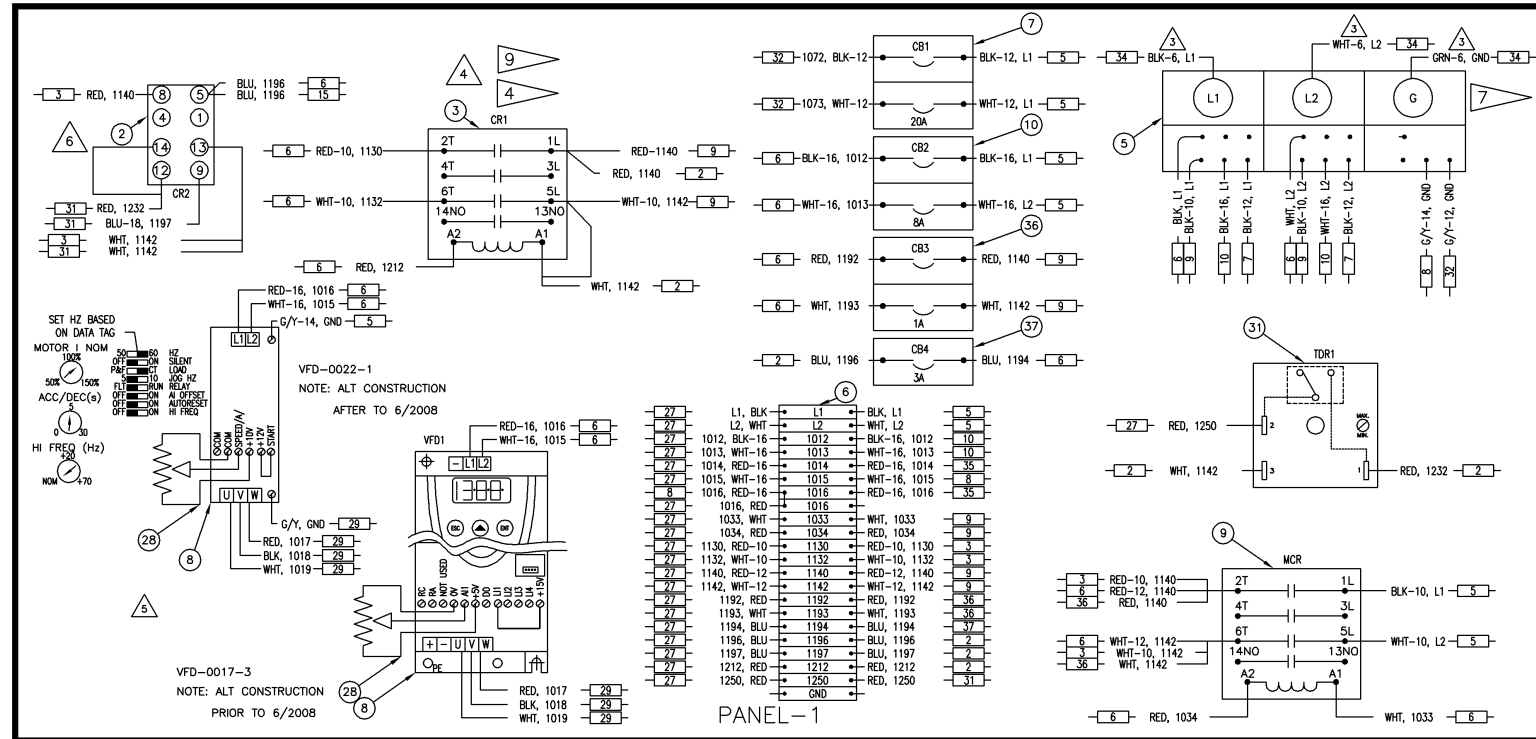
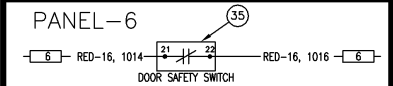


Water-warmed icing tables for applying icings to donuts warmed on the Thermoglaze system.

- H&I-2 Icer: Two 13" bowls
- H&I-4 Icer: Four 13" bowls
- H&I-2/4 spec sheet <http://www.belshaw-adamatic.com/products/doughnut-icers/hi4-donut-icer.html>



12.5" x 17" Screen for TG25

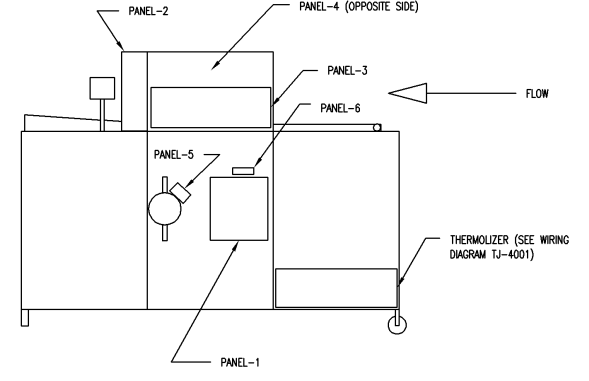


ITEM NO.	EXPORT		DOMESTIC		PART NO.	DESCRIPTION
	208V 1719 QTY.	220/240V 1720 QTY.	208V 1716 QTY.	220/240V 1717 QTY.		
1	-	-	-	-	---	---
2	1	1	1	1	RLY-0008	RELAY, 240V AC COIL, DPDT, 10A/IN
	1	1	1	1	RLY-0008A	RELAY BASE, DIN RAIL, FINGERSAFE
	1	1	1	1	RLY-0004B	HOLD DOWN SPRING
3	1	1	1	1	MDD-0460-2C	CONTACTOR, 240/60, 220/50
4	-	-	-	-	---	---
5	1	1	1	1	TM634-0233	POWER DISTRIBUTION BLOCK WHL
6	-	-	-	-	---	TERMINALS (AS NEEDED)
7	1	1	1	1	CBR-0012-20	CIRCUIT BREAKER, D20 AMP, 2P
8	ALT	ALT	ALT	ALT	VFD-0017-3	VFD, 230/1PH 3PH OUT, 1/2 HP (SQD)
	1	1	1	1	VFD-0022-1	VFD, 230/1PH 3PH OUT, 1/2 HP (ABB)
9	1	1	1	1	624-0144	MAGN CONTACTR 40A 208/600/50/60
10	1	1	1	1	CBR-0012-8	CIRCUIT BREAKER, D8 AMP 2P
11	-	-	-	-	---	---
12	1	1	1	1	624-0003A	TOGGLE SWITCH DPST 20A SLIP ON
13	3	3	3	3	PLT-0001	CLEAR NEON PILOT LIGHT, 250V
14	1	1	1	1	624-0003A	TOGGLE SWITCH DPST 20A SLIP ON
15	-	-	-	-	---	---
16	1	1	1	1	DPC-0130-350	THERMOSTAT, SNAP DISC, 350°F
17	3	-	3	-	TJ-0096	HEATING ELEMENT, B; UPPER; 1000W@208V
	-	3	-	3	TJ-0096A	HEATING ELEMENT, B; UPPER; 1000W@240V
18	3	-	3	-	TJ-0077	HEATING ELEMENT, A; LOWER; 635W@208V
	-	3	-	3	TJ-0077A	HEATING ELEMENT, A; LOWER; 635W@240V
19	1	1	1	1	FSWT-0001	N.O. SNAP DISC THERMOSTAT, 140°F
20	1	1	1	1	ACF-0003-A	FAN, AXIAL, 230V, 50/60 HZ, 3.125
21	1	1	1	1	EP18/24-0170P	AXIAL FAN, 120/240V, 50/60 HZ
22	1	1	1	1	724G-0037B	XFRMER 38VA, 208/240:24V, 50/60 HZ
23	1	1	1	1	TJ-0158-A	DC MOTOR DRIVE
24	1	1	1	1	TJ-0159	GEAR MOTOR, 3.4 RPM, 12VDC
25	1	1	1	1	TJ-0184	DIGITAL TEMP CONTROLLER W/AL AC/DC
26	1	1	1	1	TJ-0084-A	OVEN MOTOR, 230V
27	-	-	-	-	---	TERMIANLS (AS NEEDED)
28	1	1	1	1	POT-0010-4	POTENTIOMETER, 5K, 2000W
29	1	1	1	1	MTR-0071	GEAR MOTOR; SM-CYCOLO, HM-3085
30	1	1	1	1	724G-0144	THERMOCOUPLE
31	1	1	1	1	TDR-0016	TIME DELAY RELAY, 240V INPUT
32	1	1	1	1	PCD-0003	POWER CORD MOLDED RECEPT.
33	6	6	6	6	995-0145	6-3 TYPE SOOW CORD UL
34	-	-	1	1	PLG-0040	PLUG, 2P3W 250V 50A NEMA 6-50P
35	1	1	1	1	SWT-0036	SWITCH, DOOR SAFETY
36	1	1	1	1	CBR-0012-1	CIRCUIT BREAKER, D1 AMP, 2P
37	1	1	1	1	CBR-0011-3	CIRCUIT BREAKER, D3 AMP, 1P
38	1	1	1	1	CBR-0024	CIRCUIT BREAKER, 0.7 AMP, PB RESET

- NOTES:
- UNLESS NOTED, ALL WIRES 18AWG
  - UNLESS NOTED, USE 105°C MACHINE TOOL WIRE
  - DATA TAG VALUES INCLUDE ESTIMATED LOAD FROM THERMOLIZER
  - USE 200" OR 450" WIRE NOT SMALLER THAN AWG-14 BETWEEN RELAY AND ELEMENTS.
  - WIRE DEVICE BY SYMBOLS AT CONTACT LOCATIONS ON DEVICE.
  - COVER STEEL-BRAIDED THERMOCOUPLE WIRE INSIDE PANEL 2 WITH PLASTIC/INSULATING SLEEVE. SECURE WITH WIRE TIES.
  - LABEL WITH GROUND STICKER.
  - SET POTENTIOMETERS ON DC DRIVE AS FOLLOWS:
 

MIN	IR	MAX
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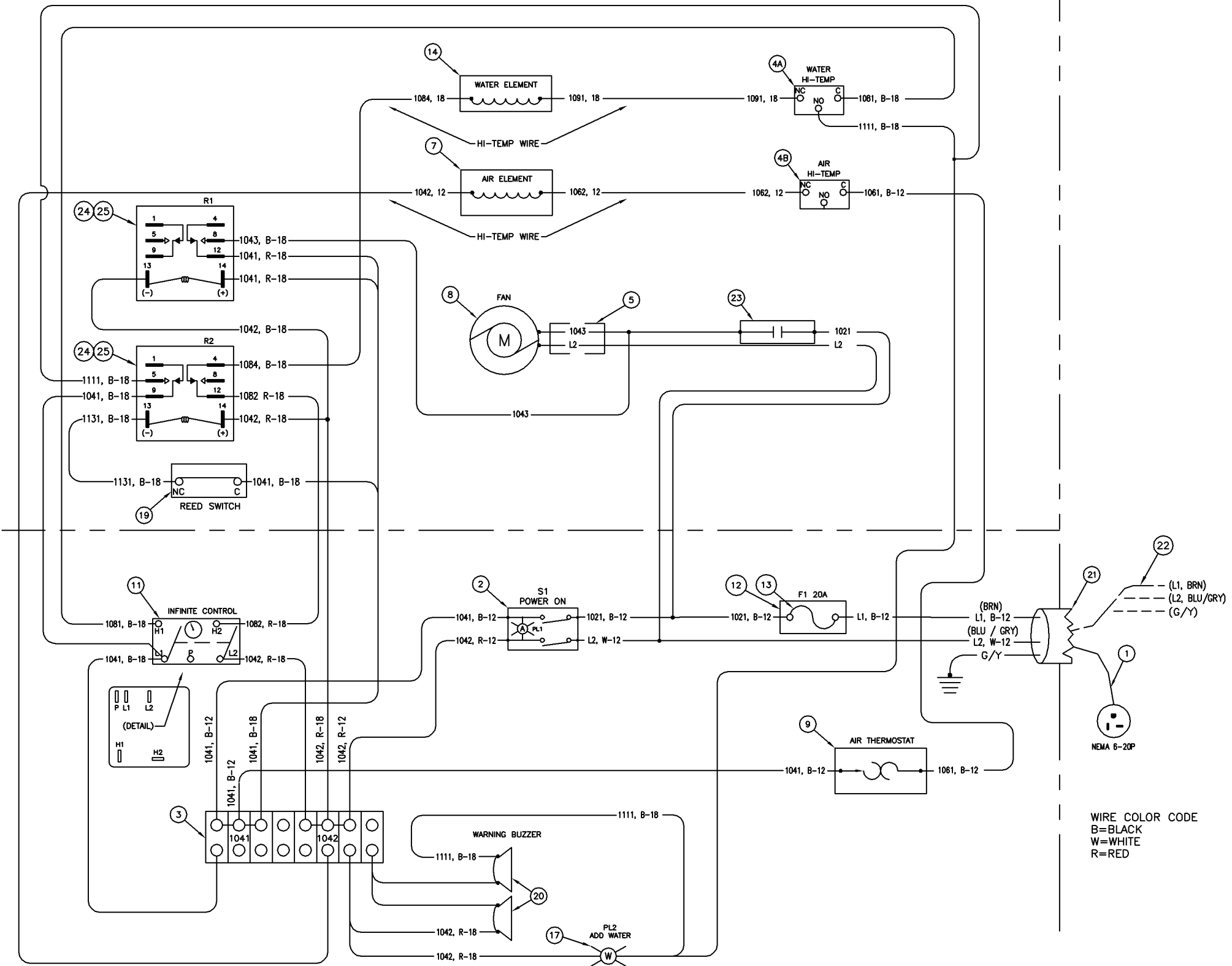
 MAXIMUM OUTPUT VOLTAGE SHALL NOT EXCEED 12 VDC.



VOLTS	208/240
PHASE	1
HZ	60
AMPS	28/28
KW	6/6.7

NOTE: VFD CHANGE: FOR UNITS BUILT PRIOR TO 6/2008 REFER TO REVISION 4 OF THIS DRAWING. CHECK WITH ENGINEERING DEPARTMENT FOR MORE INFORMATION. FOR FIELD REPLACEMENT OF VFD-0017-3 USE SK-1528

REVISION/DATE	APP'D.	BELSHAW BROS., INC.	
		SEATTLE, WASHINGTON	
		TG-25 WITH INTERLOCK	
		208V/240V, 50/60 HZ, 1 PH, DOM	
		TITLE:	
		DRAWN: JD	SERIAL NO.:
		APP'D.: MJL	DATE: 2/9/06
		DRAWING NO.:	TJ-4013
			SHT 2 OF 2 REV 5



WIRE COLOR CODE  
 B=BLACK  
 W=WHITE  
 R=RED

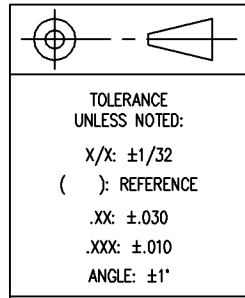
BILL OF MATERIAL/  
 DOMESTIC: TJ-1709 (208V); TJ-1710 (220V)  
 CE: TJ-1714 (240V)

ITEM NO.	DOMESTIC		CE	PART NO.	DESCRIPTION
	1709 208V	1710 220V	1714 240V		
1	1	1	-	PCD-0002	POWER CORD, MOLDED 6-20, 12/3, SO, 8FT.
2	1	1	1	SWT-0022-240	SWITCH, ILL. AMBER ROCKER, DPST, 250V, 15A
3	1	1	1	990-0208F	TERMINAL BLOCK, 20A, 300V, 8 POS.
4A-B	2	2	2	DPC-0130-225	SNAP DISK THERMOSTAT
5	1	1	1	C800G-0069A	CORD SET, POWER FOR FAN (ITEM 8)
6	-	-	-	-	RESERVED
7	1	1	1	EP18/24-0250	ELEMENT, HEATING COIL - 2000W @ 240V
8	1	1	1	EP18/24-0170P	FAN, AXIAL, 230VAC
9	1	1	1	EP18/24-0116	THERMOSTAT, 25A, 250V, 70-130 DEG F
10	-	-	-	-	RESERVE
11	1	1	1	GL100-0086	INFINITE CONTROL, 240V, 15A
12	1	1	1	DPC-0128	FUSEHOLDER, 20 AMP, 250V
13	1	1	1	GL100-0132F	FUSE, 20A, TYPE ABC
14	-	1	1	TJ-0220B	ELEMENT, WATER HEATER, 600W, 240V
	1	-	-	TJ-0220A	ELEMENT, WATER HEATER, 600W, 208V
15	A/R	A/R	A/R	995-0245	WIRE, HI-TEMP, 240 DEG C
16	-	-	-	-	RESERVED
17	1	1	1	PLT-0001	PILOT LIGHT, 250V, WHITE
18	-	-	-	-	RESERVED
19	1	1	1	TZ-17-0055	REED SWITCH; LIQUID LEVEL
20	2	2	2	MK-0055A	WARNING BUZZER, 120V
21	1	1	1	ACS-0008	STRAIN RELIEF CORD GRIP, 90 DEG.
22	-	-	8FT	995-0108	12GA 4.0MM H07RN-F 3-COND CORD
23	1	1	1	FSWT-0001	N.O. SNAP DISC THERMOSTAT, 140°F
24	2	2	2	RLY-0008	RELAY; DPDT; 240V
25	2	2	2	RLY-0008A	BASE; RELAY

NOTES:

- USE 105°C MACHINE TOOL WIRE

DATA TAG	
AC VOLTS	208/220/240
HZ	50/60
AMPS	10.6/10.5/10.0
KW	2.2/2.3/2.7



TOLERANCE UNLESS NOTED:  
 x/x: ±1/32  
 ( ): REFERENCE  
 .XX: ±.030  
 .XXX: ±.010  
 ANGLE: ±1'

BELSHAW BROS., INC. SEATTLE, WASHINGTON

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TITLE: THERMOLIZER - TJ 208/240VAC, 50/60HZ, 1PH DOM./CE, NO AUTO-WATER; SS WATER BOX

MATERIAL:	NTS	JD	12/16/05	MJL	TJ-4008	1
	SCALE	DRAWN	DATE	APP'D	DRAWING NO.	SHEET 2 OF 2 REV