

THE COBRA SYSTEM HEATED BUG TOWERS

2209 PENNSYLVANIA AVE.
WEST MIFFLIN, PA 15122
412-872-4149

Thank you for purchasing "The Cobra System".
Please read important information below:

***THE COBRA SYSTEM must be installed by a certified electrician and plumber.
Warranty is rendered null and void if not following specific directions while installing
THE COBRA SYSTEM.***

***NOTE:**

- We recommend using Teflon tape for all pipe thread connections on all threaded fittings.
- Be sure there is no electric current going to the Bug Tower until it is filled with presoak and coming out of bleeder plug.
- **Do not make any adjustments to the digital thermostat they are preset to the correct temperature.**

WARRANTY

Parts manufactured by The Cobra System are covered for a period of 90 days from the shipment date and 1 (one) year on labor. Other parts which are purchased by The Cobra System used to manufacture The Cobra System products are covered by their respective manufacture warranties.

WARRANTY TERMS:

The Cobra System warrants to the original purchaser to be free of Defective Parts and Workmanship for a period of 1 (one) year. This warranty begins on the date of original retail delivery or original use, whichever occurs first. Repairs or replacements and warranty will not extend the warranty coverage. No benefits or remedies are available under this limited warranty while the invoice for the unit or related services remains outstanding. This warranty is Non-Transferable. If any part of the Cobra System C.T.A. Fails in normal use because of defective parts or workmanship performed by the manufacturer and is returned to us, then it will be repaired, or assembly replaced. The alleged defective part of the assembly MUST be returned to the manufacturer, at your cost properly supported by purchase receipt for inspection and credit consideration for the Replacement coverage to be applicable, As specified below.

ALL WARRANTY REPLACEMENTS AND FIELD REPAIRS MUST BE PRE-APPROVED. AN IDENTIFICATION REFERENCE MUST BE OBTAINED BEFORE ANY SERVICE IS PERFORMED.

COBRA BUG TOWER INSTALLATION INSTRUCTIONS

Parts Inventory:

- (1) Pressure relief valve
- (1) ¼" ball valve (bleeder)
- (1) 6" PVC cap
- (1) TSW-150 Digital Control Switch

Not Included:

- (1) Watertight service box for TSW-150 control
- (1) 2 Pole Intermittent Contactor

Installation:

- 1) Remove Bug Tower from crate.
- 2) Mount the Tower on the wall close to the operator and high enough to prevent injury while walking by the unit.
- 3) You will need 1 watertight service box mounted near the Tower for the TSW-150 control. *We recommend using a timer for opening and closing of business day for this equipment.*
- 4) After mounting the Bug Tower and watertight service box. Install all PVC pipe sized for appropriate wire. Then, remove the 3 stainless hex head bolts near bottom of unit to expose heating element terminals. Power will be 240V Single Phase to element. *After all connections are made to element use an electrical spray sealant on the wire connections to post.*
- 5) The temperature probe wire located next to element has been installed and made ready to run to the TSW-150 control terminal block contacts. Wire locations are on inside lid of TSW-150 control. *All control settings are factory set and locked out, so tampering is no permitted.* (see page 3 for wiring specifications)
- 6) When you have finished all electrical phases. This unit comes with a wall mount applicator. Attach to wall in the proximity of the operator. Run the applicator hose to one of the ½" stainless outlet couplings on Tower top side.

DO NOT TURN POWER ON before filling Bug Tower with pre-soak or the elements will permanently burn-out.

- 7) Install the Thermal Relief Valve on top into ½" pipe coupling. Now you are ready to purge the system to push all the air out of Tower. Install the ¼" poly ball valve and in the open position, manually turn on the Air Diaphragm Pump until you see chemical "not foam" coming out of the ball valve. Turn pump off, then close the ball valve.
- 8) Replace the 6" PVC cap before powering up.

OPERATION: Once the Bug Tower is powered up, you will see the Digital Control Display temperature rise to approximately 123 degree F. Then, the temperature will go down to the low set temperature programmed to a range of 122 to 125 degrees F. (If these ranges do not occur, turn power off and call Technical Support at Dwyer Instruments, 219-879-8866)

If you need any assistance or have any questions about installation please call 724-344-1492

thecobrasystem@comcast.net

www.thecobrasystem.com

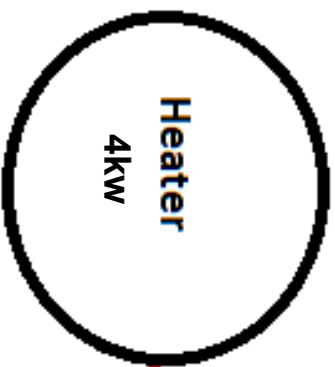
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HEATER/TIMER WIRING Bug Tower Wiring Diagram

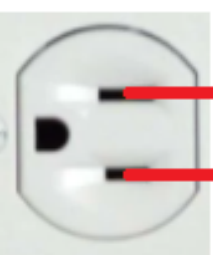
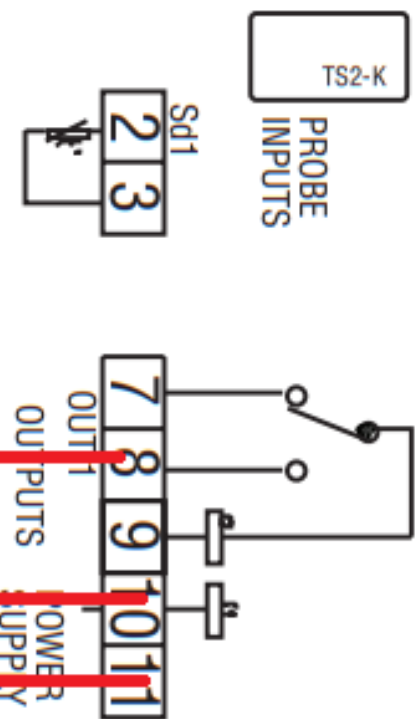
Electrical Requirement for 4kw heater: 240V single phase, 25-amp breakers designated power to the tower

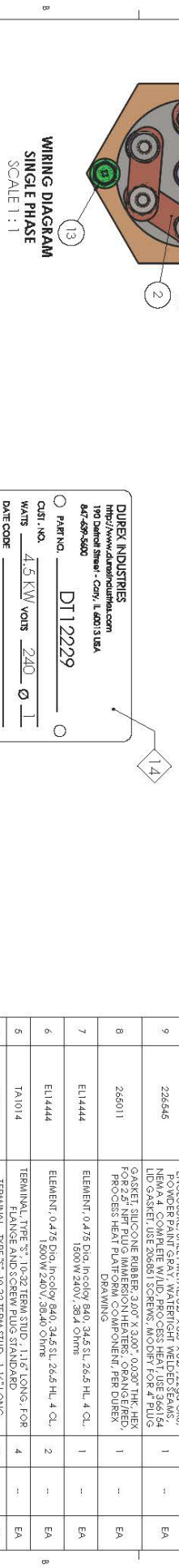
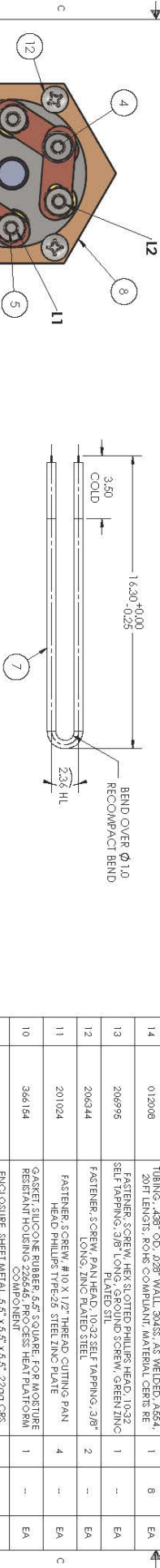
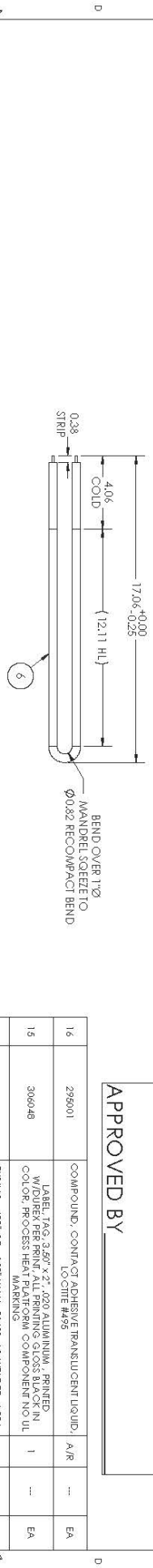
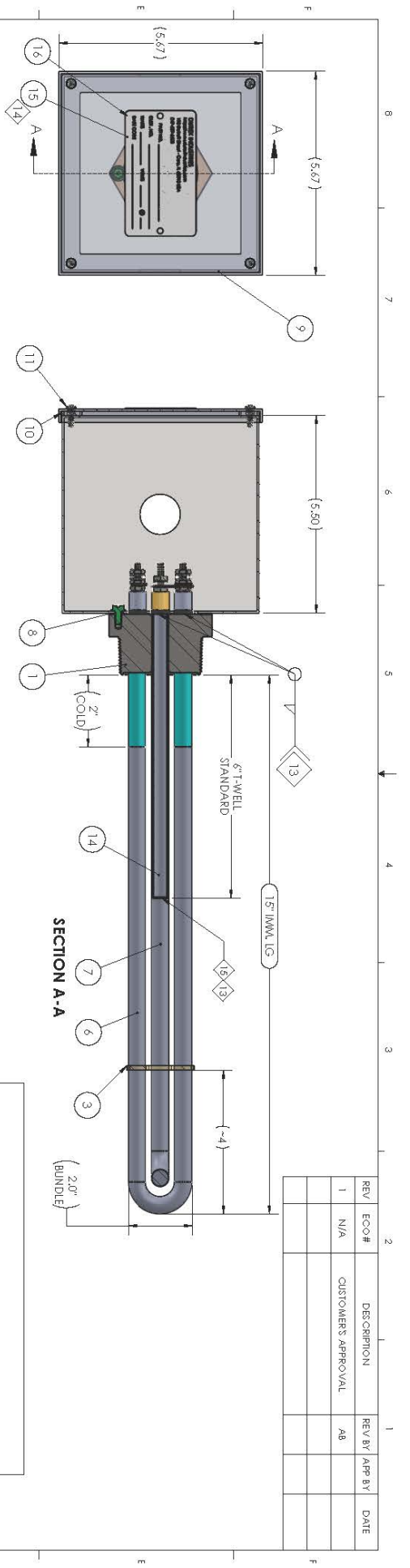
TECH SUPPORT:
 For Heating Element Questions call Durex Industries at 847-639-5600
 For TSW-150 Digital Control Thermostat Questions call Dwyer Instruments at 219-879-8868



Two pole intermitant contactor- To carry the load to the heater. Horsepower must be rated above heater draw.

Timer to shut down system past closing hours, and to turn the system on befor open.





- HEATER SPECIFICATIONS:**
1. TYPE: 304 SS HEATER W/ PLUG
 2. WTS: 304 SS ELEMENTS (MATERIAL: INCOLOY 600, 38 W/SQ. IN.)
 3. NO. SENSORS: NO TSTAT
 4. NEMA 4 SHEET METAL ENCLOSURE
 5. TOTAL WATTAGE: 4,500 W
 6. VOLTAGE: 240 V
 7. WIRING: SINGLE PHASE, PARALLEL
 8. WIRING: 3/8\"/>
- HEATER PARTS LIST:**
1. HEATER, 240V, 4.5 KW, 304 SS, NEMA 4, 11.2\"/>

DUREX INDUSTRIES
<http://www.durexindustries.com>
 190 Detroit Street - Cony, L 60013 USA
 847-497-5000

PART NO: **DT12229**
 CUST. NO: **DT12229**
 WATS: **4.5 KW** VOIS: **240** Ø: **1**
 DATE CODE: _____

NO.	ITEM NUMBER	DESCRIPTION	QTY	LENGTH	UOM
1	197006	FITTING, PIPE PLUG, 2.11\"/>			
2	187691	FITTING, PIPE PLUG, 2.11\"/>			
3	187187	STAMPING, JUMPER, 0.44\"/>			
4	187691	FITTING, PIPE PLUG, 2.11\"/>			
5	1A1014	TERMINAL, TYPE \"S\", 10-32 TERMINAL STUD, 1.12\"/>			
6	EU14444	ELEMENT, 0.475 DIA, INCOLOY 600, 34.5 SL, 26.6 HL, 4 QL, 1500W/240V, 38.4 Ohms	2	EA	
7	EU14444	ELEMENT, 0.475 DIA, INCOLOY 600, 34.5 SL, 26.6 HL, 4 QL, 1500W/240V, 38.4 Ohms	1	EA	
8	265011	GASKET, SILICONE RUBBER, 3.00\"/>			
9	226645	ENGLOUSE SHEET METAL WATER TIGHT WELDED, ROUNDER FINISH, NEMA 4, 11.2\"/>			
10	366154	GASKET, SILICONE RUBBER, 5.5\"/>			
11	201024	FASTENER, SCREW, #10 X 1/2\"/>			
12	206344	FASTENER, SCREW, PAN HEAD, 3/8\"/>			
13	206995	FASTENER, SCREW, HEX SLOTTED PHILLIPS HEAD, 10-32 SELF TAPPING, 3/8\"/>			
14	012008	TUBING, .088\"/>			
15	306048	LABEL, TAG, 3.87\"/>			
16	295001	COMPOUND, CONTACT ADHESIVE TRANSLUCENT LIQUID, LO CHIE #499	A/R	EA	

APPROVED BY _____

REV	ECO#	DESCRIPTION	REV BY	APP BY	DATE
1	N/A	CUSTOMER'S APPROVAL	AB		

UNLESS OTHERWISE SPECIFIED:	STANDARD	APPROVAL	DATE	BY
WELDING	ASME B31.1	DR-344N	3/22/2021	AB
MECHANICAL	ASME Y14.5	DR-344N	3/22/2021	AB
ASSEMBLY	ASME Y14.5	DR-344N	3/22/2021	AB



DT12229
 SHEET 1 OF 1