

THE COBRA SYSTEM HEATED TOWERS

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 Cobra Towers until units are filled with presoak and coming out of bleeder plug.
- Do not make any adjustments to thermostats 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 under 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 in order 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 TOWER INSTALLATION INSTRUCTIONS

Parts Inventory:

- (2) Pressure relief valves
- (2) ¼" ball valve (bleeder valves – top of unit)
- (2) 6" PVC caps
- (2) TSW-250 Digital Control Thermostat

Not Included:

- (2) Watertight service box for TSW-250 Digital Control Thermostat
- (2) Two Pole Contactor

Installation:

- 1) Remove Towers from crates.
- 2) Place a Tower on each side in the desired location close or mounted onto your Presoak Arch so that your heated chemical travels the minimum distance to your spray manifold.
- 3) Take the Tower bottom off by removing the (3) 3/8" hex head bolts to expose thermostat cover. Heating elements are pre-set. DO NOT CHANGE. Remove (3) screws on side of cap, pull off cap to show element terminals. (After all connections are made you MUST spray all wire and terminal connections with an electrical sealer.
- 4) Once you have made your connections replace thermostat cover and screws.

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

- 5) Replace the Tower bottom and aligning both ½" FNPT Coupler and 1" pipe couple (electric) on Tower side.
- 6) Connect your presoak fluid line coming from pump to ½" FNPT coupler (lower fitting) presoak on driver and passenger side. Then connect the out-going (upper ½" FNPT coupler), to presoak fluid line back to your driver and passenger side spray arch manifold on the arch distributing presoak equally from each tower.
- 7) Install Pressure Relief valve. Adjust setting to 90 lbs.
- 8) Once the fluid line is connected, manually turn on your presoak pump to fill Towers until you see presoak coming out of ¼" ball valve, (bleeder), on Tower top. Turn pump off and turn the ¼" ball valve in closed position and replace orange PVC cap.
- 9) Car washes running 50 cars per hour or more be sure your hot water heater is sending 115-120 degrees presoak to Towers. Then the Towers will discharge 120-123 degrees to your arch. Car washes running 50 cars or less per hour do not require preheated presoak to Towers to sustain optimal temperature.

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

thecobrasystem@comcast.net

www.thecobrasystem.com

Update 3_9_21



HEATER WIRING

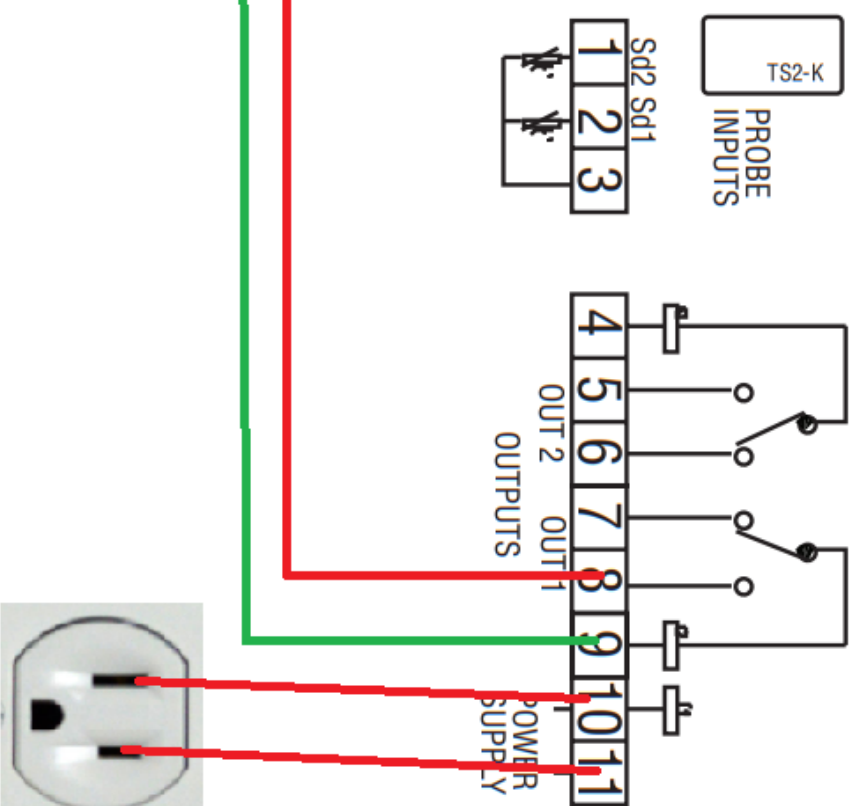
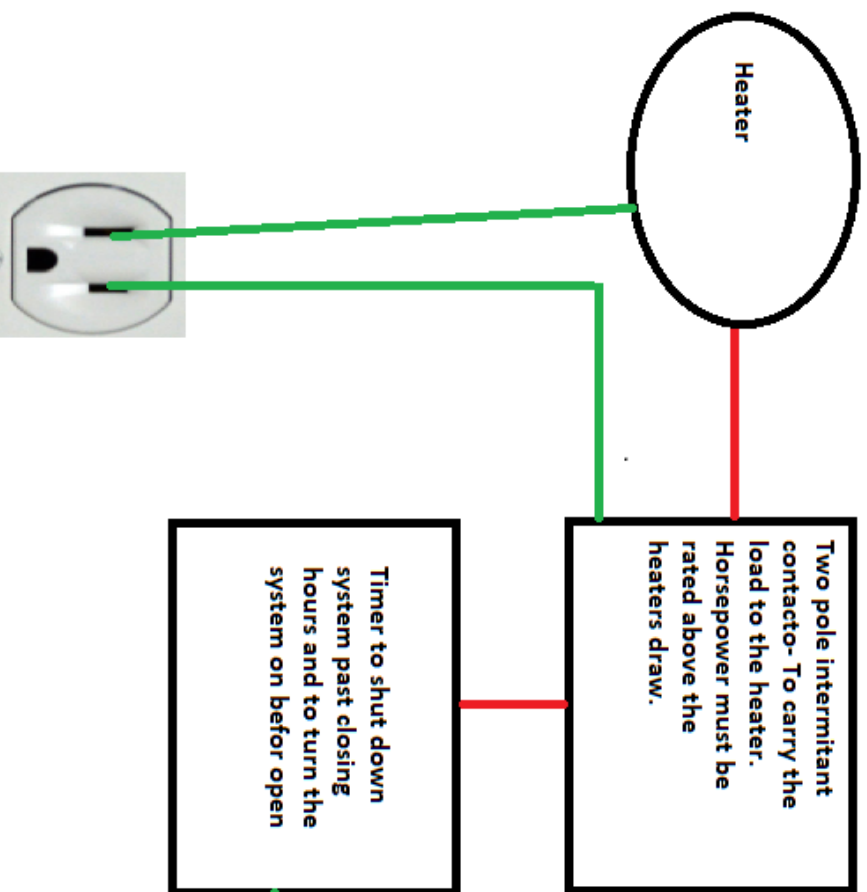
Tower Wiring Diagram
(Single Phase)

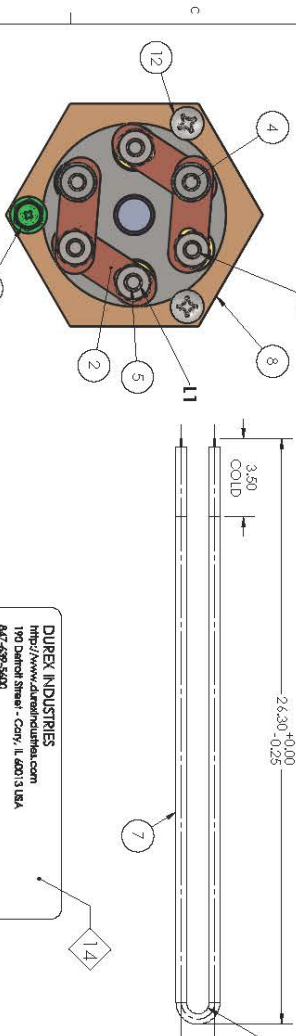
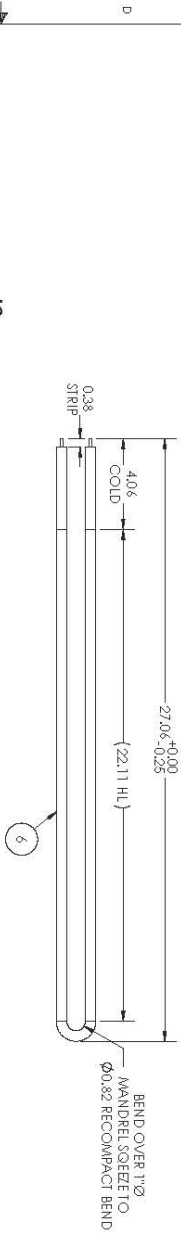
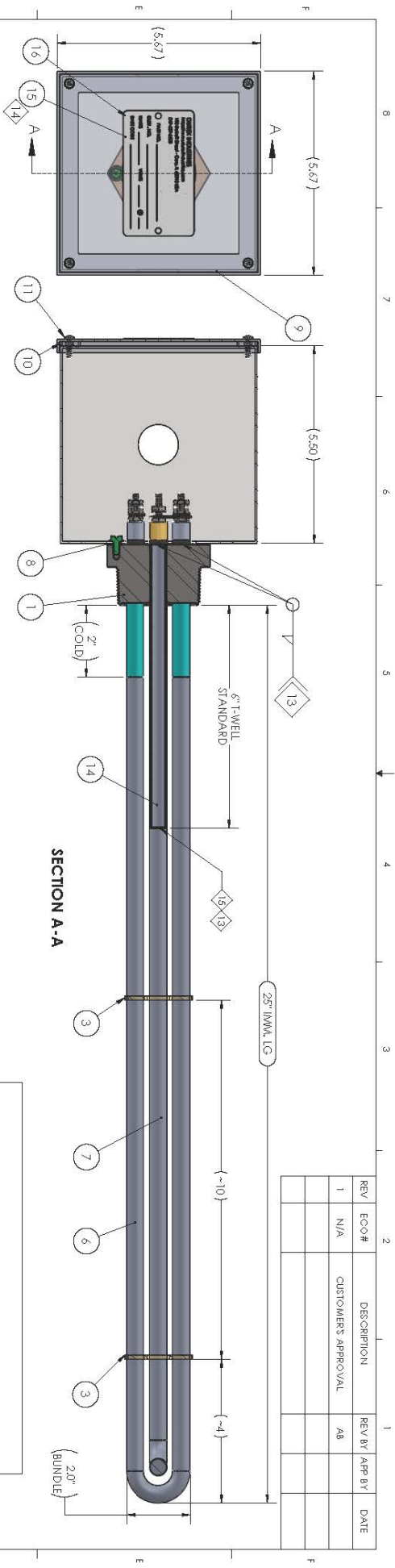
Electrical Requirement: 240v single phase, 50-amp breakers designated power to each Tower

TECH SUPPORT:

For Heating Element Questions call
Durex Industries at 847-639-5600

For TSW-250 Digital Control
Thermostat Questions call Dwyer
Instruments at 219-879-8868

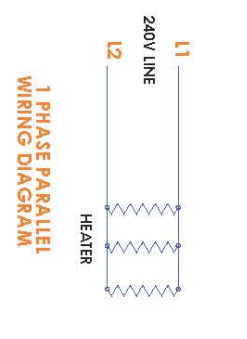




SCALE 1 : 1
WIRING DIAGRAM
SINGLE PHASE

DUREX INDUSTRIES
<http://www.durexindustries.com>
 190 Detroit Street - Cary, IL 60013 USA
 647-497-5900

PART NO. **D112228**
 CUST. NO. _____
 WATS **9 KW** VOLTS **240** Ø **1**
 DATE CODE _____



1 PHASE PARALLEL
WIRING DIAGRAM

NO.	ITEM NUMBER	DESCRIPTION	QTY.	LENGTH	UOM
1	137905	COMPONENT	1	..	EA
2	187891	FITTING, PIPE PLUG, 3/8" O.D. TIGHTENING TORQUE 1.5 LB-FEET, STAINLESS STEEL, MACHINED PER PRINT, PROCESS HEAT FLUX/STORM	4	..	EA
3	187187	STAMPING, SPACER, FOR Ø.0475" DIA ELEMENTS, 6 HOLES, 1.190 304SS, WATERLET PER PRINT, PROCESS HEAT PLATFORM COMPONENT	2	..	EA
4	TA1013	TERMINAL, TYPE "S", 10-32 TERM. STUD, 1.16" LONG, STANDARD, INSTALLED ON L1, L2, L3	2	..	EA
5	TA1014	TERMINAL, TYPE "S", 10-32 TERM. STUD, 1.12" LONG, FOR FLANGE AND SCREW PLUG STANDARD	4	..	EA
6	EU1443	ELEMENT, 0.475 Dia, Incoloy 840, 54.5 SL, 46.5 HL, 4 CL, 3000 W/240V, 19.2 Ohms	2	..	EA
7	EU1443	ELEMENT, 0.475 Dia, Incoloy 840, 54.5 SL, 46.5 HL, 4 CL, 3000 W/240V, 19.2 Ohms	1	..	EA
8	246011	GASKET, SILICONE RUBBER, 3.00" X 3.00", 0.030" THK, HEX FOR 2.25" DIA PULG DIMENSION ON HEATER, O-RING/SEAL, PROCESS HEAT FLUX/STORM DRAWING	1	..	EA
9	226445	ENCLOSURE, SHEET METAL, 5.7" X 5.5" X 5.5", 2299 GRS, POWDER PAINT GRAY, WATER TIGHT WELDED SEAMS, NEMA 4 COMPLETE W/ILD, PROCESS HEAT USE 366154	1	..	EA
10	366154	RESISTANT HOUSING COMPONENT, SHEET METAL PLATFORM	1	..	EA
11	201024	FASTENER, SCREW, #10 X 1.12" THREAD CUTTING PAN HEAD PHILLIPS TYPE 55, STEEL, ZINC PLATE	4	..	EA
12	206344	FASTENER, SCREW, #10 X 1.12" THREAD CUTTING PAN HEAD PHILLIPS TYPE 55, STEEL, ZINC PLATE	2	..	EA
13	206996	SELF TAPPING, 3/16" LONG, SELF TAPPING, 3/16" PLATED, SIL	1	..	EA
14	012008	TUBING, .488" OD, .028" WALL, 304SS, AS WELDED, .6564, 20FT LENGTH, POH, COMPLIANT, MATERIAL CERTS RE MARKING	1	8	EA
15	306048	WELDED PER PRINT, 2" DIA, ALUMINUM, FINISHED COLOR, PROCESS HEAT PLATFORM COMPONENT NO UL MARKING	1	..	EA
16	295001	COMPOUND, CONTACT ADHESIVE TRANSPARENT LIQUID, LO CITE #459	1	..	EA

APPROVED BY _____

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

UNLESS OTHERWISE SPECIFIED:
 ALL DIMENSIONS ARE IN INCHES AND DECIMALS THEREOF.
 DIMENSIONS IN PARENTHESES ARE FOR INFORMATION ONLY.
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DATE: 3/22/2021
 BY: [Signature]
 APPROVAL: [Signature]

DUREX INDUSTRIES
 190 DETROIT STREET
 CARY, IL 60013 USA

Part No. **D112228**
 Scale: 1:1
 Sheet 1 of 1