STERL-TRONIC MODEL 10425

TEMPERATURE CONTROL UNIT

SERVICE AND INSTRUCTION MANUAL

MODEL 10425 CONSISTS OF TWO ZONE TEMPERATURE CONTROL UNIT

STERLING, INC.
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Milwaukee, WI 53223-0435

Please note that our address and phone information has changed. Please reference this page for updated contact information.

⚠CAUTION These manuals are obsolete and are provided only for their technical information, data and capacities. Portions of these manuals detailing procedures or precautions in the operation, inspection, maintenance and repair of the products may be inadequate, inaccurate, and/or incomplete and shouldn't be relied upon. Please contact the ACS Group for more current information about these manuals and their warnings and precautions.

Parts and Service Department

The ACS Customer Service Group will provide your company with genuine OEM quality parts manufactured to engineering design specifications, which will maximize your equipment's performance and efficiency. To assist in expediting your phone or fax order, please have the model and serial number of your unit when you contact us. A customer replacement parts list is included in this manual for your convenience. ACS welcomes inquiries on all your parts needs and is dedicated to providing excellent customer service.

For immediate assistance, please contact:

- North, Central and South America, 8am – 5pm CST +1 (800) 483-3919 for drying, conveying, heating and cooling and automation. For size reduction: +1 (800) 229-2919.
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Let us install your system. The Contract Department offers any or all of these services: project planning; system packages including drawings; equipment, labor, and construction materials; and union or non-union installations.

For assistance with your sales or system contracting needs please Call:
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MODEL NO.	SUFFIX LETTER	HORSEPOWER PUMP
10425	B	1/2 H.P.
--	C	3/4 H.P.
--	D	1 H.P.
--	E	1-1/2 H.P.
--	F	2 H.P.
--	G	3 H.P.

MODEL 10425

DESCRIPTION

This unit is a two zone, high capacity, water-circulating temperature control system. The unit is a completely portable design with full sheet metal cabinet, with service doors, large casters and power cable with plug.

HEATING - Each zone is provided by a 6000 watt electric immersion heater, 3 phase low-watt density, of the flanged type. The heater is energized through a 3 pole contactor, upon demand by the temperature controller.

PUMPING - For each zone is provided by a straight centrifugal pump, bronze-fitted, 3450 RPM.

COOLING - Is accomplished by the direct injection method which blends cooling water directly into the circulating system under carefully controlled thermostatic conditions. This method of cooling provides for a very great cooling capacity and allows the user to make very efficient use of his cooling water. Because the total amount of cooling water entering the system is directed through the work area by employment of a check valve.

THERMOSTATIC CONTROL of the system is maintained by a controller with heating and cooling output. The single-set controller energizes either the heater or the cooling, and indicates system temperature.

WATER SUPPLY PROTECTION has been provided in the form of a pressure switch. The pressure switch will keep the unit from operating until it has been sufficiently pressurized by the user's water supply. This will help to protect the heater and the pump seal from damage through operation without water. This switch is adjustable.

NOTE: IF THIS UNIT IS TO BE OPERATED TO 300° F., THE PRESSURE SWITCH SHOULD BE ADJUSTED TO A MINIMUM OF 65 PSI.
This will assure the unit of having sufficient pressure at that temperature to eliminate possibilities of internal boiling.

MODEL 10425

INSTALLATION

The unit should be placed into position at the press. The user's mainfolds for raw water and drain should be brought to the back of the unit.

DELIVERY AND RETURN connections are located at the rear of the unit. If the water must travel some considerable distance to the work area, the piping should be kept the same size as that of the connections in order to minimize losses in flow resulting from fluid resistance.

WATER SUPPLY AND DRAIN are located at the rear of the unit. If 300° F. water temperatures are to be maintained, a minimum of 65 psig pressure must be maintained on the water supply line to each zone, from the user's water supply. If the water temperatures will not exceed 250° F. then the user need only provide a 25 psig minimum water supply pressure. The importance of these pressure/temperature relationships cannot be OVERLY STRESSED and the user must supply a sufficient water supply pressure.

Back pressure from the drain, if any, should not approach or exceed the pressure of the water supply, since in large measure the cooling capacity of the unit is directly related to the difference in pressure between the water supply and drain.

ELECTRIC POWER is brought to the unit through the power cable which is supplied with it. This cable is fitted with a Russell & Stoll plug for quick attachment to a corresponding outlet at the press. Each zone will use approximately 20 amps when running full-load on 3/60/460 power. A ground line is brought out from each zone through the cable and power plug and the user should exercise care to insure that a safe and secure ground connection is made.

THE UNIT should be rolled into position and service connections installed. Water supply and drain connections are attached and the delivery and return connections should be made. With the disconnect switch "OFF", the user should attach the power-cable to the power supply connection at the press.

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OPERATION

After all the water supply, drain, electrical, and delivery and return connections have been made, the following steps should be taken to place the unit into service.

1.) Turn on the electrical power at the disconnect switch of the unit.

2.) Turn on the water supply to provide water for each zone. This should remain open and under sufficient pressure (see installation instructions) at all times. The drain line should also be open and should remain so.

3.) Turn the "VENT HEAT" selector switch to "VENT" position. Vent each zone for at least 45 seconds in order that all entrapped air be expelled to the drain and a steady flow of water to the drain established. This should be done one zone at a time, NOT ALL AT ONCE.

4.) After air purge, the start button should be pushed. If the water supply connections to the press and mold allow sufficient pressure, the unit will continue to run when the start button is released. The green pilot light will indicate whether or not the pump is running. MOTOR ROTATION SHOULD BE CHECKED IMMEDIATELY and not continue to run when the start button is released, the user should check to be sure that the water supply is turned on.

5.) Set the thermostat for the desired operating temperature. The unit will operate automatically and continuously from this point.

PARTS LIST
October 28, 1988
10425-DX 01-02

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PART NO.	DESCRIPTION
729-00072	Contactor
724-00270	Controller (B.C. 585-C)
728-00014	Disc. Switch
728-00013	Operating Mech.
725-00553	Fuse, Motor #FRS 5 amp @ 600V
725-00557	Fuse, Heater #FRS 20 amp @ 600V
725-00593	Fuse, #FNS 0.6 amp @ 250V
725-00546	Fuse, #FRS 25 amp @ 600V
725-00534	Fuse, #FRN 2.5 amp @ 250V
722-00041-02	Immersion Heater 6 KW @ 460V
715-00006-02	Pilot Light
075-00355	Pump & Motor Complete 1 HP (Scot)
721-00001-02	Push Button, Start
721-00003-02	Push Button, Stop
714-00104	Relay
726-00105	Starter, Motor
733-00014	Switch, Pressure(1 PS)
717-00032	Switch, Selector
704-00102	Transformer
732-00013	Valve, Solenoid w/coil
732-00021	Valve, Solenoid w/coil
724-00099	Safety Thermostat
733-00020	Switch, Pressure(2 PS)
037-00021	Gauge, Pressure
701-00003	Thermocouple

NOTE: Please give Model & Serial No's. when ordering parts. Part No's. are listed as a guide, but many units have special parts or features not covered by this list.

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