

#### Range of SEC Temperature Controller Units

#### Steam Heated Models

1	-Zone	<b>Temperature</b>	L	Inits
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- 2-Zone Temperature Units
- 4-Zone Temperature Units

Combination of multi-zone units possible

#### **Electrical Heated Models**

- 1-Zone Temperature Units
- 2-Zone Temperature Units
- 4-Zone Temperature Units

Combination of multi-zone units possible

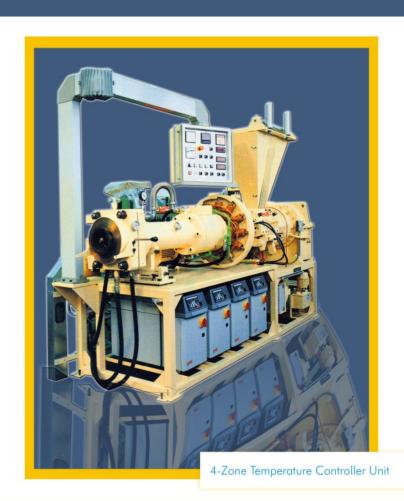
Circulation capacity ranging from 60 lt - 1000lt/ min is available in all the above models with a temperature range from  $0^{\circ}$ C to  $95^{\circ}$ C in standard models and  $0^{\circ}$ C to  $140^{\circ}$ C in special models.

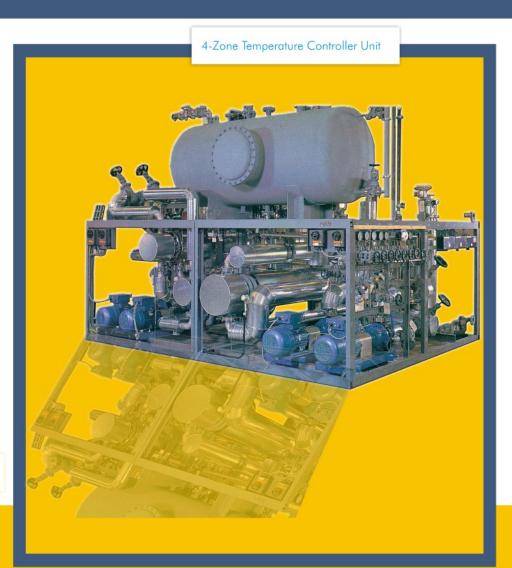
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# emperature Controller Units





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# emperature Controller Units

#### lechnical Description

SEC temperature controllers, model SEC WD are heating and cooling units with direct water injection that are ready for connection and designed for operation with water as circulation medium. The closed water circuit allows a pressurized use upto 140°C, in special cases.

Models SEC TA are heating and cooling units with water circulation in the system for cooling purpose. The closed water circuit allows a prresurized use upto 95°C.

The heat is either removed from the consumer by cooling or transferred to the consumer by heating, depending on the operating conditions. The heat transfer occurs by the heat transfer medium water, which is transferred with an efficient pump through the consumer.

The temperature of the process water is controlled automatically. A temperature sensor, installed inside the unit, measures the existing actual temperature. The microprocessor controller compares the measured value with the adjustment set value and pulses the heating or cooling accordingly. A trouble free operation is guaranteed by a complete safety system.

A standard unit is equipped with a large number of functions, and can be enhanced for various useful operations on request. All current interfaces are available for the connection with the controllers of the processing machines.

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## <u>emperature Controller Unit:</u>

### Machine Features

SEC compact controller - easy to operate, interfaces compatible microprocessor controller with high setting accuracy.

Easy to understand central operating console with membrane type keypad for data entry, function and disturbance indication.

Digital alphanumeric clear text indication of set and actual values in a 4 line display. Indication of operating and disturbance messages in text form.

Adjustable set point limitation (max. Operating temperature adjustable).

Limit comparator (tolerance monitoring of actual values with alarm report).

Freely selectable ramp function for temperature changes during heating and cooling.

Lowering to safety temperature and pressure relief on shutdown.

Electronic level monitoring with dry-running protection.

Automatic venting.

Y-strainer in the cooling water circuit.

Easy access to all units due to detachable cover.

Parts in contact with water are made up of corrosion resistant material.

Minimum noise emission.





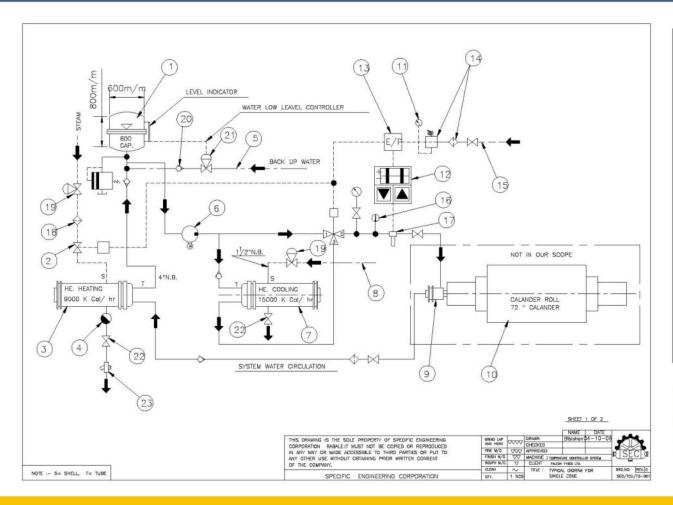


#### SEC WD - 250 MODEL SEC TA - 350 SEC TA - 450 SEC WD - 100 SEC WD - 150 Temperature Range - °C Up to 140 Up to 140 Up to 140 Up to 95 Up to 95 Heat Carrying Agent Water Water Water Water Water Control Range - °C 0-150+ Up to 95 0-150 0-150+ Up to 95 Heating Capacity - KW 18 18 12 Process 60 233 Maximum Flow Rate - Lts / min 80 200 100 Maximum Pressure - Bar 5.8 5 5.5 3.8 5.0 3 Pump Drive - Bar 1.3 2 2.2 0.5 Pump Capacity - KW 20 Water Cooling Reg. Cooling Water Quantity - Lts/min 70 70 Req. Cooling Water Pressure - Bar 3/4 3/4 100 Req. Cooling Water Inlet Temp. - °C 15 15 2/4 Nominal Water cooling Capacity at Cooling Water Temp. 15°C & 23 30 Circulating Water Temp. at 90°C Moulding Training - Ltrs 415 V, 50 Hz, 3 Phase Electric Power Supply Control Voltage - Hz 230 V, 50 Hz Total Connected Load - KW 10.3 20 21 12 15 Connections Circulation Medium Inlet R1" BSP inside Thread R1 1/4" BSP inside Thread R1 1/4" BSP inside Thread R1 1/2" BSP inside Thread G 1/2" Circulation Medium Outlet R1 1/4" BSP inside Thread R1 1/4" BSP inside Thread R1 1/2" BSP inside Thread G 1/4" R1" BSP inside Thread Cooling Water Inlet - inside thread R 3/4" BSP inside Thread R 3/4" BSP inside Thread R 1/2" BSP inside Thread R 1/2" BSP inside Thread R 1" BSP inside Thread Cooling Water Outlet -inside thread R 3/4" BSP Machine Dimensions LXWXH - mm 320 X 990 X750 320 X 990 X750 990 X 320 X750 760 X 295 X600 990 X 320 X750 Weight - Kg 56 150 75 44 45 Achat - Grey RAL - 7038 Achat - Grey RAL - 7038 Orange RAL - 2000 Achat - Grey RAL - 7038 Achat - Grey RAL - 7038 Color Traffic - Grey RAL - 7043 Traffic - Grey RAL - 7043 Cream RAL - 1013 Traffic - Grey RAL - 7043 Traffic - Grey RAL - 7043



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# <u>emperature Controller Units</u>



PART NAME / DESCRIPTION  EXPANSION TANK 600 LT.  CONTROL VALVE				
HEAT EXCHANGER FOR HEATING				
BUILTUP WATER LINE				
MONOBLOCK PUMP ( 500 LPM CAP.)				
HEAT EXCHANGER FOR COOLING				
ROTARY JOINT				
CALANDER ROLL				
PRESSURE GUAGE				
TEPRATURE RECORDER & CONTROLLER ( EUROTHE	M MAKE )			
E TO P CONVERTOR				
FRL				
AIR				
THERMOWELL				
THERMOWELL WITH PROBE				
STRAINER				
GATE VALVE				
CHECK VALVE				
SOLONOID VALVE				
STEAM TRAP				
3 WAY CONTROL VALVE ( ATD)				
	CONDENSER RETURN BUILTUP WATER LINE MONOBLOCK PUMP ( 500 LPM CAP.) HEAT EXCHANGER FOR COOLING CHILLED WATER IN AT 30°C ( 100 LPM.) ROTARY JOINT CALANDER ROLL PRESSURE GUAGE TEPRATURE RECORDER & CONTROLLER ( EUROTHE E TO P CONVERTOR F R L AIR THERMOWELL THERMOWELL WITH PROBE STRAINER GATE VALVE CHECK VALVE SOLONDID VALVE GLOBE VALVE STEAM TRAP			

Typical P and I diagram for Steam/Electrically Heated Temperature Controller Units.



