

DIATHERMIC OIL TEMPERATURE CONTROLLERS SERIES DIATHERMIC OIL

CLIMAT PF - N

DIATHERMIC OIL PF Series

Up to 350 °C

The advantages of the use of diathermic oil are connected to the possibility of reaching high temperatures safely. The IECI temperature controllers are structured to support such operation continuously. The technical features include magnetic drive pumps without the possibility of leakages of the fluid, and the heating elements are controlled by a PID system. Cooling systems can be managed with a proportional valve.

The combination of these features ensures compliance with chemical-physical characteristics of the oil, allowing a long life and an effective performance over time.



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Diathermic Oil Up to 350 °C



DIE TEMPERATURE CONTROLLERS DIATHERMIC OIL SERIES

- Diathermic oil up to 350 °C working temperature;
- Single or Dual temperature zone, each zone completely independent;
- Mode of work function pressure / vacuum;
- Magnetic drive circulation pump;
- Heating system with sealed resistors braze-welded without leakage to 100%, with separation of each single component to 1 kW;
- Heating power, PID system;
- Static power relays, three phase;
- Cooling system by indirect exchange, FCX3016 model;
- Glazed stainless steel tank, capacity 60 liters for the

- expansion of the oil;
- Drain system by reversing pump and valve for network air input;
- Cooling system for oil in the reservoir;
- Automatic safety system for water in oil: it stops heating to decrease the temperature below 100 °C, and when the water evaporates, automatically increases the temperature to the set point;
- Electronic temperature controller PLC IECI TD 240 / TD 700;
- Integrated External connection via Modbus protocol;
- Double set point for each zone;
- Display of the return temperature;
- Planning timer day / week;
- System alarms and status display;
- Heavy frame, epoxy paint 3mm thick.

ELECTRONIC CONTROL

- Adaptive system with INVERTER on the pumps, controlled by the temperature difference (patent);
- Heating with automatic external dry contact remote to the press;
- Self-controlled cooling to the switch-off;
- Differential Control of delta Set-point;
- Differential Control of delta between delivery and return;
- Connection Protocols for all presses;
- Display of temperature trends and the history of alarms (log);
- Management **of the third set-point on the external probe.**



HEATING SYSTEMS "N"

- "N": Sealed electrical resistors with resistive elements, individually isolated for each kW; power, durability, no leakages;



Available version "G" with heating system by Methane Gas or LPG (Ieci patent)

Machine Code	CCPD019 / CCPD014 / CCPD021 / PFO330 / CCPD025
Maximum temperature	200° - 250° - 300° - 330° - 350°C
Electronic controller device	PLC TD700, Win CE, display 7" touch screen, 65.000 colours, Movicon / TD240 3,5"
Fluid type of heat transfer loop	Diathermic Oil
Thermoregulating zones	1-2, completely independent
Operating system	pressure / vacuum
Heating type	Electrical resistors, immersed and sealed
Heating power kW	From 12 to 72
Cooling type	Indirect exchange
Heat exchanger	Copper serpentine, model FCX3016;
Cooling power kW	From 72 to 320 kW
Circulation pump	Electropump, magnetic drive
Characteristics of the pump	From 60 to 200 l/min - from 6 to 9 bar
Load of fluid inside the loop	Manual
Power supply	400 V+PE, auxiliary 24 VAC
Hydraulic supply	Fittings ½"
Die connection	Fittings 1"
Tank	Glazed steel, capacity 60 l
Electronic instrumentation	Digital controller of temperature or PLC systems
Frame	T3 - T1 - T60, with swivel wheels
Frame and dimensions (L x W x H) mm	500x1000x1000h - 500x1250x1230h 600x1250x1390h
Weight (kg)	from 190 to 450

OPTIONS AVAILABLES
Heating power increased up to 72 kW
Cooling power increased up to 320 kW with braze-welded exchanger
Different pump size up to 200 l/min, 9 bar
Cooling system with 3-way anti-scale system
Multichannel manifold for external distribution, stainless steel
Warning light and alarm of temperature set-point range
Warning light and alarm of temperature delivery/return range
Water inlet motorized valve
Interface of the press with various protocols, Profibus, Ethernet, Profinet, etc ...
Cabling system with PLC SIEMENS S7 1200
Hoses or fixed plants for the connection to the mould, tailored

Other options are available on demand

CIRCULATION OF HEAT TRANSFER FLUID

- Optimal management of pumps through the adaptive system **INVERTER** (patent);
- Magnetic drive pumps;
- Circuit drain system with automatic entry of air inside the flow;
- Automatic system for purge of air and water inside the oil ;
- Pressure / Vacuum operation management



Web Site Driver



The die thermoregulation

Die temperature control in die casting

Technology: The state of the art



Technical focuses

Heating systems

Cooling systems

Fluid circulation

Electronic system



Company evolution

Technological news

Fairs and events

Partnership



Connection plants

Fixed and flexible stainless steel piping

Insulated pipes in protected and modular galvanized conduits

Manifolds with steel taps and accessories for fluid distribution



Special applications

Technical solutions made for peculiar applications and for specific requests

Cooling solutions for oil presses



Service

Planned maintenance and warranty extension

Renting service

Reparation overhaul and technical update for every brand

Products



Thermoregulators
PF Series
OIL
up to 350 °C



Thermoregulators
PF Series
WATER
up to 200 °C



Thermoregulators
PD e MINI Series
WATER/OIL
90°/150 °C



Thermorefrigerators
PD - PF Series
from
5° to 160 °C



Chillers
Refrigerators



Quenching
Tanks



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