MODEL



EUROTHERM

CONTROLS PROCESS AUTOMATION RECORDERS

Ideal for:

- Vacuum heat treatment
- Freeze dryers
- Autoclaves
- Semiconductor furnaces
- Altitude simulation chamber

Features:

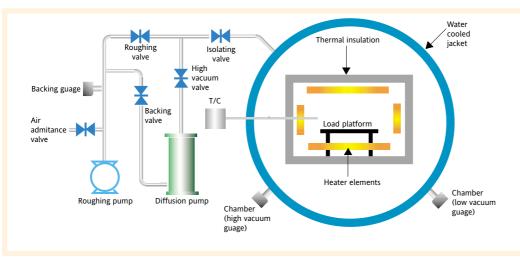
- Direct interface to vacuum gauges
- Auto Hi/Lo gauge selection
- Integrated temp/ vacuum control
- Leak detection
- Roughing pump timeout
- Six vacuum setpoints

Vacuum Control Supplement

The 2704 Vacuum controller is capable of being used solely to control the vacuum pump down sequence of a furnace, or as an integrated furnace controller where both temperature and vacuum are controlled. The 2704 Vacuum Controller can have all of the features of the standard 2704 including three control loops, Setpoint Programming along with maths and logic compatability.

At the heart of the vacuum controller is a specially designed vacuum function block capable of accepting up to 3 vacuum sensor inputs.

Features of the 2704 include automatic switchover between high and low chamber vacuum gauge and additional input for the backing or foreline Pressure. Six vacuum setpoint outputs are available and other features include a power on signal for the high vacuum guage, Roughing pump Timeout alarm and a Leak Detection Routine.



Typical vacuum setup



Sensor inputs

The 2704 can interface with up to 3 vacuum gauge inputs. Two inputs are used for the high and low main chamber vacuums with the third used for the Backing or Foreline pressure.

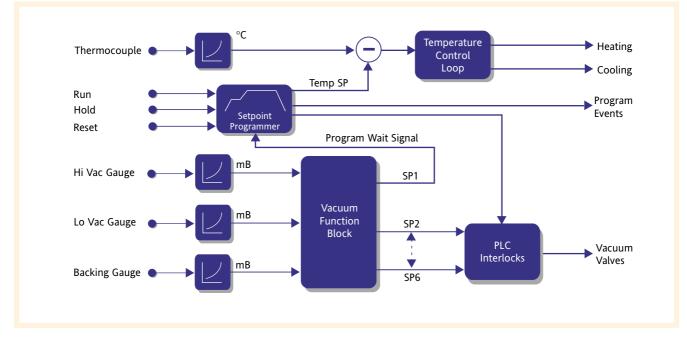
The switchover between the chamber sensors is automatic and bumpless. To prevent damage to the high vacuum gauge, power is not applied until a pre-set vacuum level has been achieved. Six vacuum setpoints are available each of which can be assigned to operate on any gauge. Most common guage linearisations are already available and more can be created upon request.

Roughing pump timeout

When the controller starts the roughing pump, a diagnostic timer is started which generates an output if the backing vacuum has not achieved a certain level within a pre-set time.

Leak detection

The leak detection provided will provide a measure of the rate of change of vacuum in units/Min, this will be compaired with an pre-set leak rate value after a timeout period. If after the timeout period the rate of vacuum change is not below the acceptable value a leak fault alarm will be indicated.



Vacuum heat treatment

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