



**fcfm**

FACULTAD DE CIENCIAS  
FÍSICAS Y MATEMÁTICAS  
UNIVERSIDAD DE CHILE

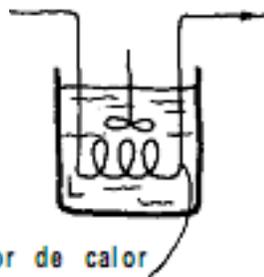
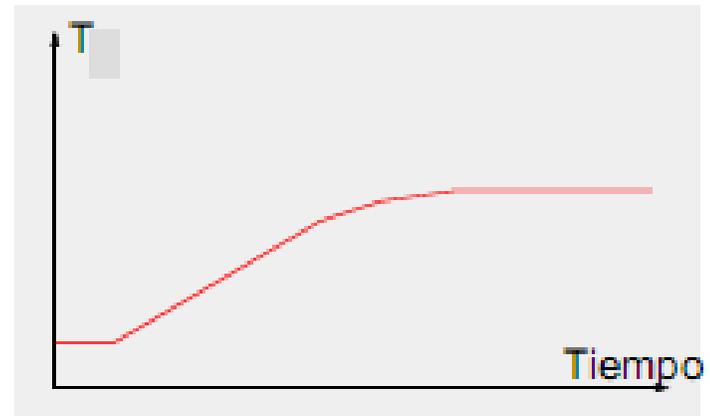
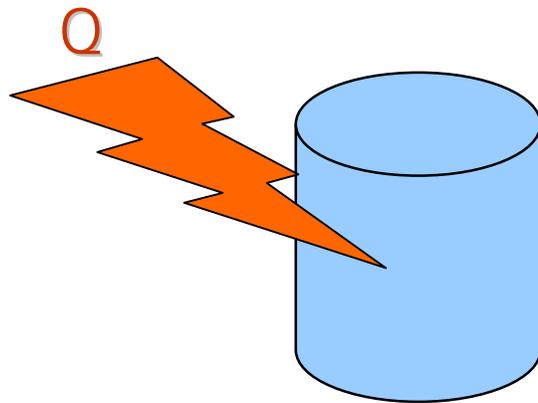
Universidad de Chile  
Facultad de Ciencias Físicas y Matemáticas  
Departamento de Ingeniería Química y Biotecnología

# Transferencia de Calor

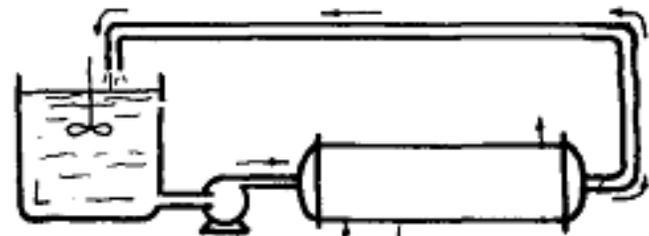


# Intercambiador de calor intermitente

- Se calienta una carga de fluido



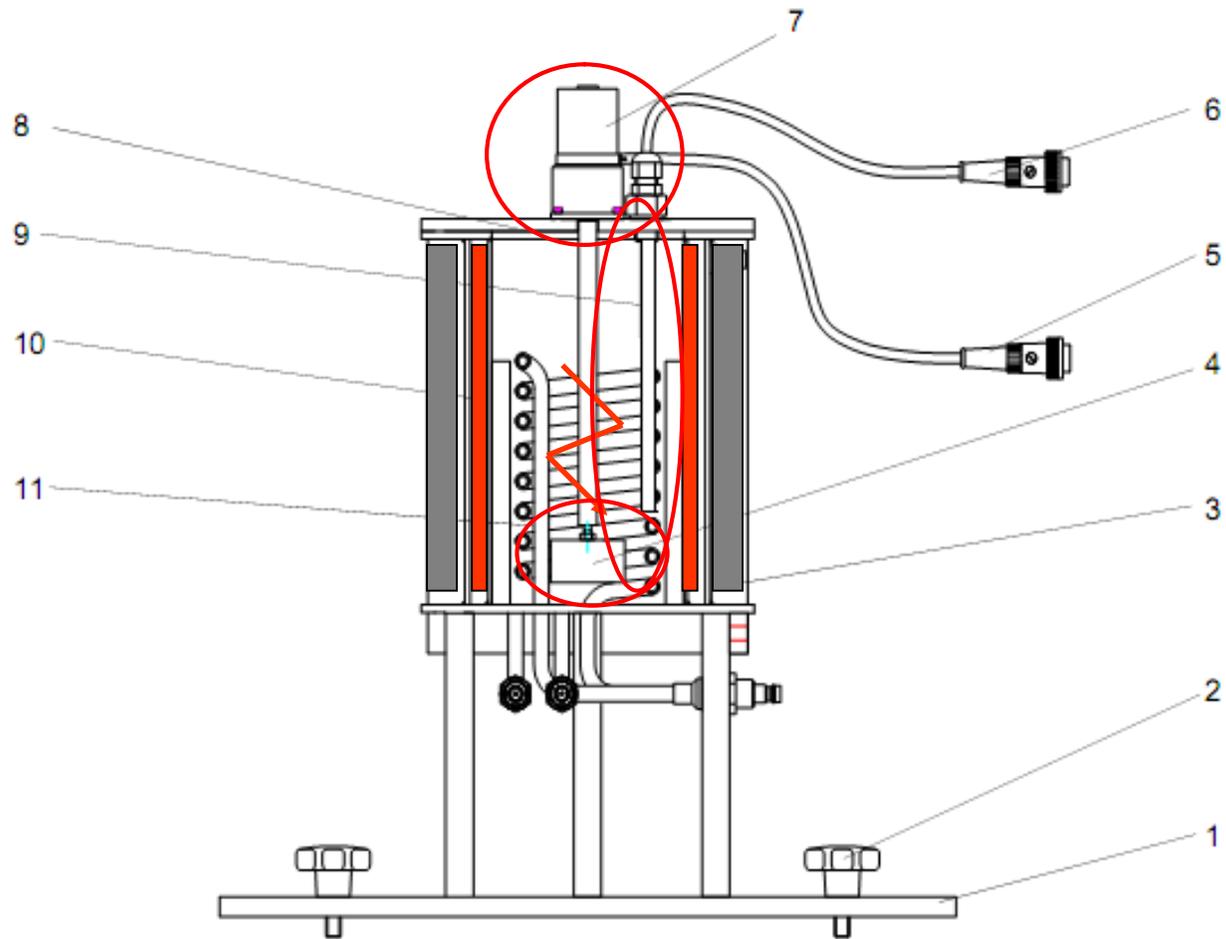
Intercambiador de calor dentro del recipiente



Intercambiador de calor externo

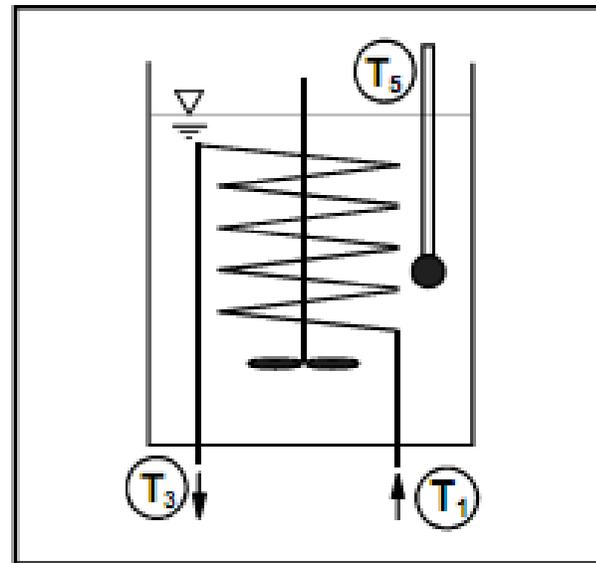
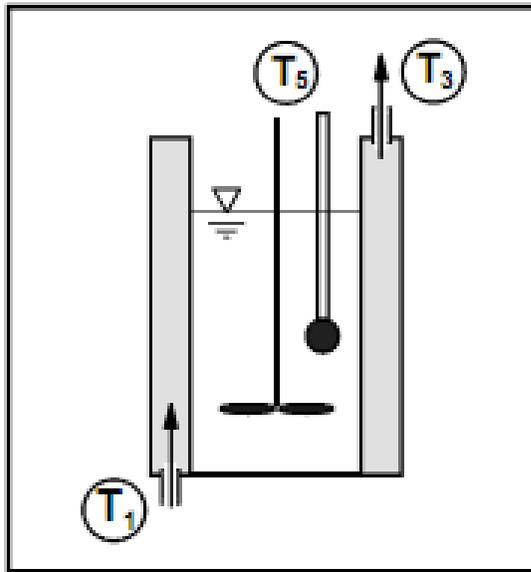
# Equipo

➤ GUNT WL 110.04



# Equipo

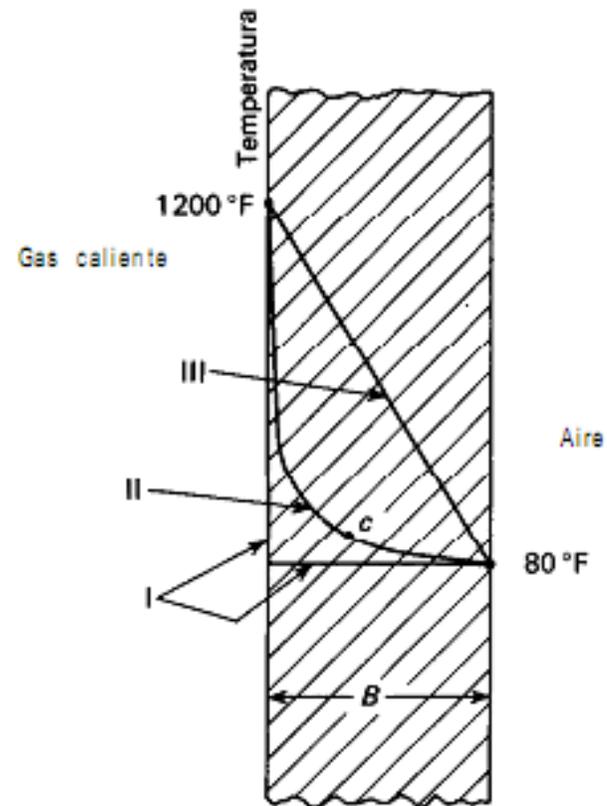
## ➤ Experiencias



➤ Se calcula  $U_{\text{global}}$  para distintas condiciones operación

## Trasmisión de Calor por Conducción

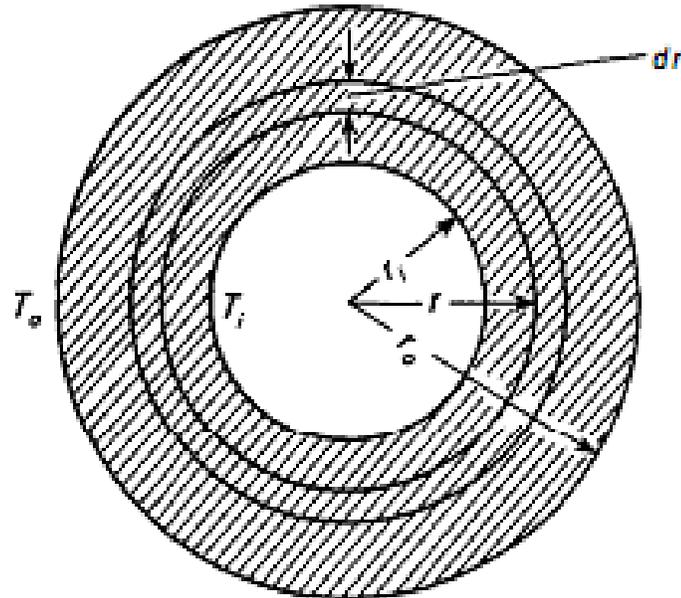
- Conducción lineal → A través de una pared recta



$$\dot{Q} = \frac{k \cdot A \cdot \Delta T}{B}$$

## Trasmisión de Calor por Conducción

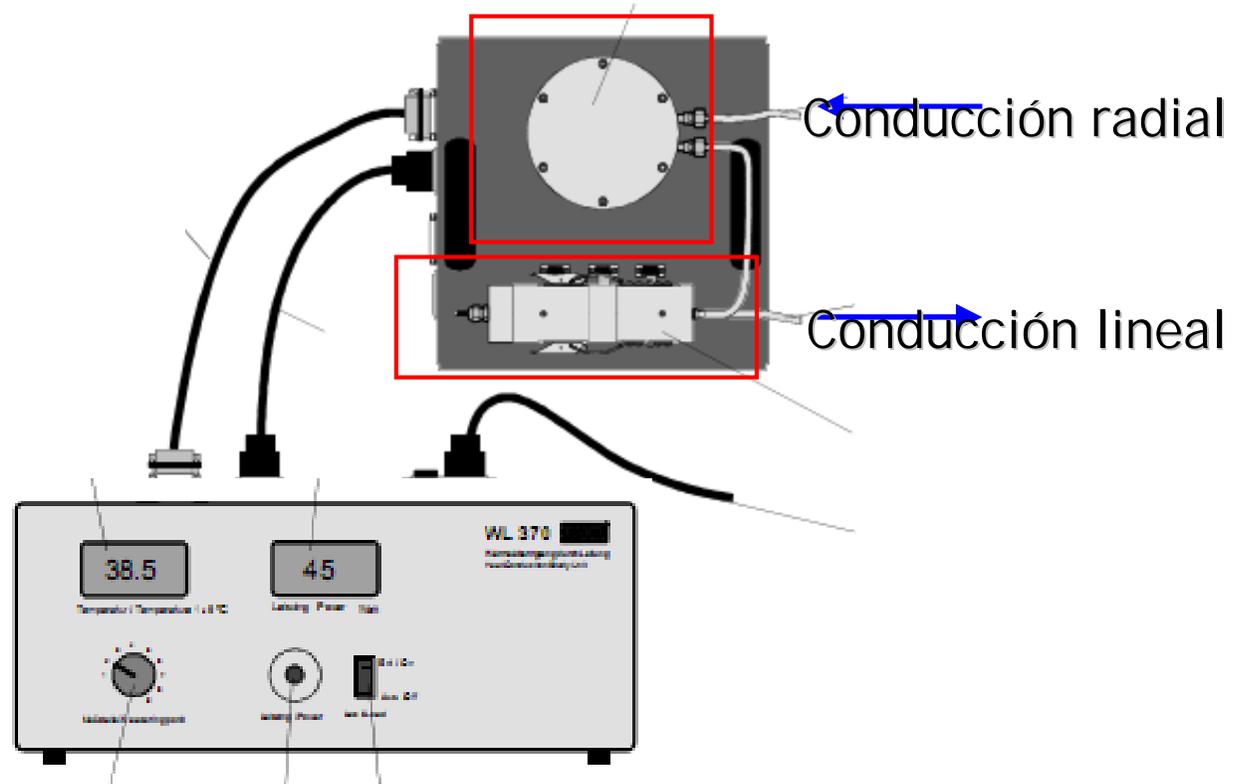
- Conducción radial → A través de un cilindro



$$\dot{Q} = k \cdot \frac{2 \cdot \pi \cdot L}{\ln(r_o / r_i)} \cdot \Delta T$$

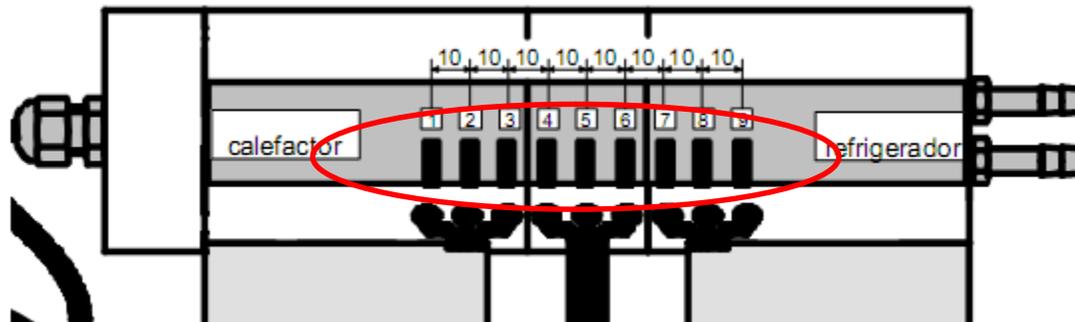
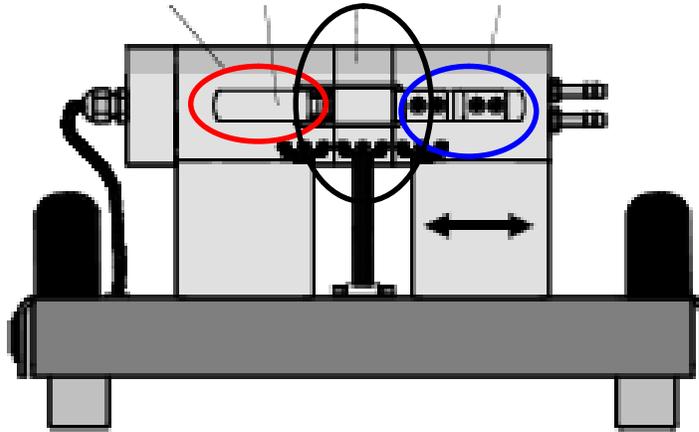
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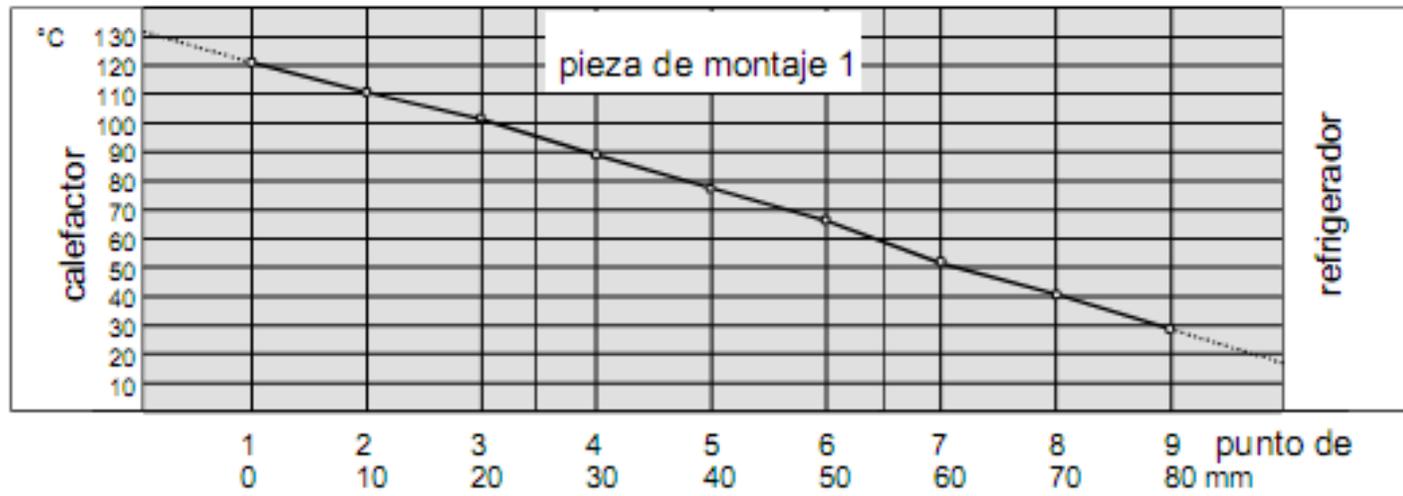
## ➤ GUNT WL 372



# Equipo

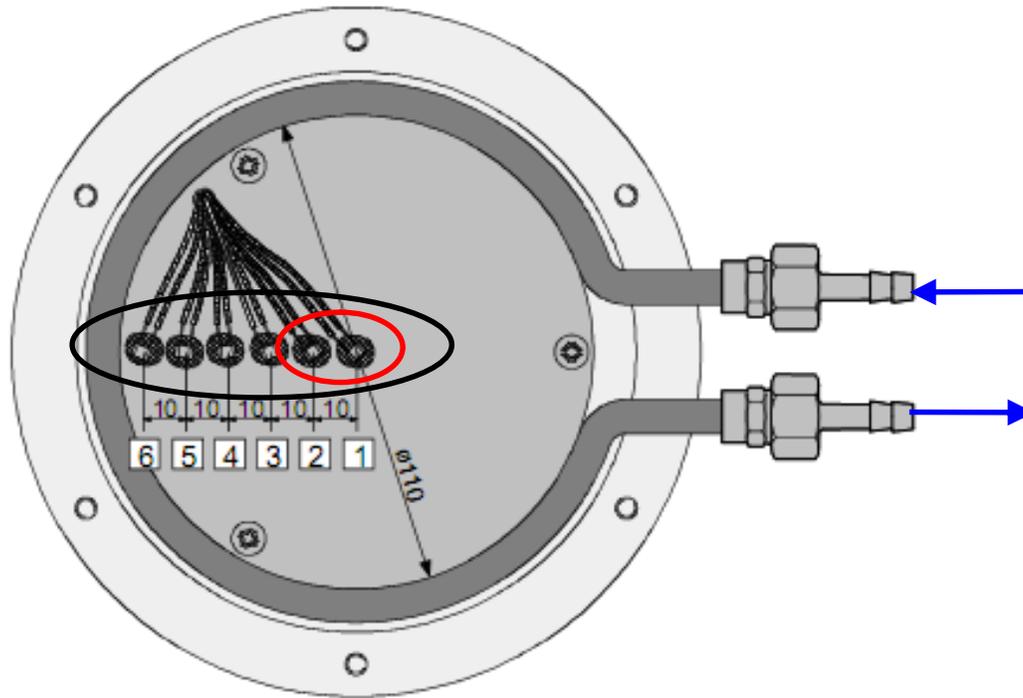
## ➤ Conducción lineal

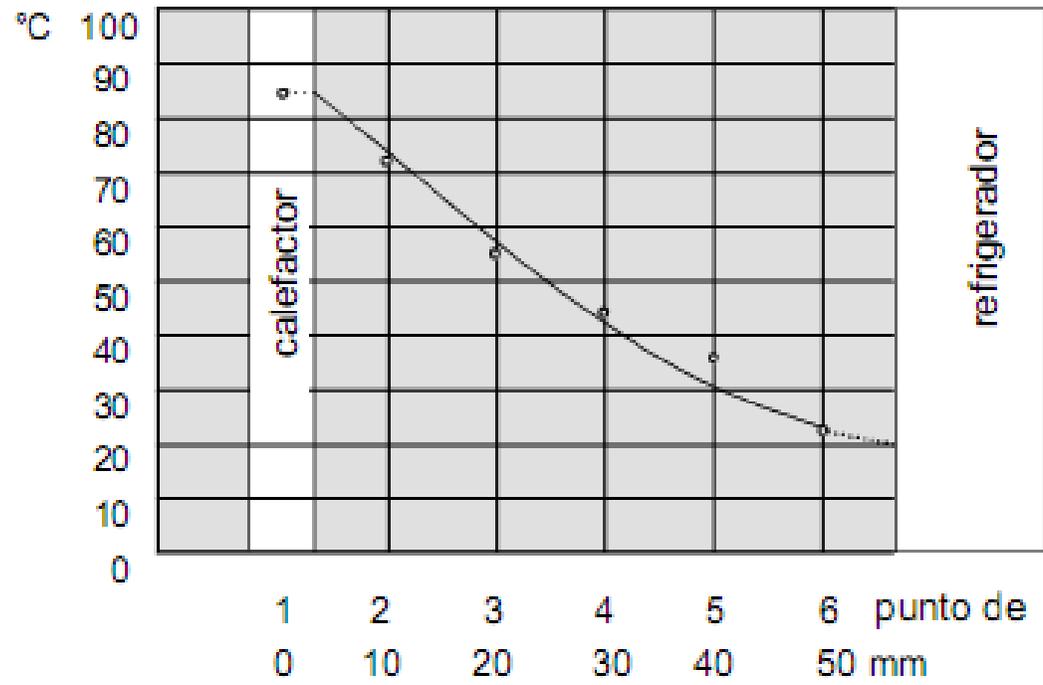
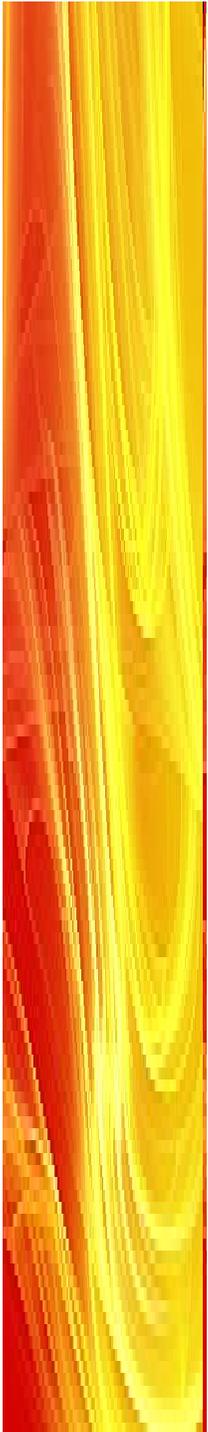




# Equipo

## ➤ Conducción radial







FIN