



Control y Ventilación

# SEPARADOR C&V PANAL C&V

Separador de Gotas de Alta Eficiencia  
Certificado por la U.M.H.

Re lleno para  
Torres de Refrigeración



The comb is a support for a generate interface surface, so that starting with this basic concept finds it's field of activity in aplicaciones relacionadas with the transfer of heat and mass between liquid and air.

According to the obliquity of the canal in its constructive shape, Control y Ventilación manufactures and markets its two large families of comb, the **PANAL C&V** with straight canal and **SEPARADOR C&V** with oblique canal, which adds to the potential of the first, be an excellent high efficiency drift eliminator, for the cooling towers and evaporative condensers.

The high efficiency of **SEPARADOR C&V** has been demonstrated by certificate of the University Miguel Hernandez, specialist in this type of study which concludes that the water drag by the **SEPARADOR C&V** is equal to 0,00623 % of the circulating water from a cooling tower which is about 8 times below the maximum allowed by law, which is 0,05% (R.D.865/2003)



## Panal C&V (Control y Ventilación S.L.) Drift Eliminator Study

This document summarizes the drift tests carried out on Panal C&V (Control y Ventilación S.L.) Drift Eliminator. The tests were conducted using the Chemical Balance method following the procedure described in the Australian standard AS-4180.1 Drift loss from cooling towers - Laboratory measurement. Part 1: Chloride balance method. Measurements were carried out on a test facility assembled at the roof of a laboratory at the Universidad Miguel Hernández de Elche (Spain). The main device of the test plant is a forced draft cooling tower with a cross sectional area of 0.6530 x 0.525 m<sup>2</sup> and a total height of 2.597 m. Panal C&V drift eliminator is a plastic mesh that takes the form of an extrusion of a triangle along an axis tilted about 45°. The eliminator has a total height of 30 cm and has been divided into two parts with the inclination of the mesh rotated 180 degrees at the middle.



The average value for the water mass flow during the test was 5049.021 / h and the air exit velocity average value was 3.77 m/ s. A drift rate of 0.00623% of the circulating water flow is measured for Panal C & V Drift Eliminator. This value represents an emission level an order of magnitude lower than 0.05% which is the maximum value set by Spanish Law Real Decreto 865/2003, por el que se establecen los criterios higiénico-sanitarios para la prevención y control de la legionelosis.

D. Manuel Lucas Miralles  
Universidad Miguel Hernández



## CHARACTERISTICS

### Thermal Efficiency

The use of the mesh in the construction allows obtain a double contact surface, developing a total nominal interface liquid/air, which allows greater thermal efficiency .

### Aerodynamic Profile

The configuration of the combs in straight canals facilitates the flow of air, resulting in a low pressure drop .

### Mechanical Stability

The specific resistance of the mesh of high density polyethylene, as constructive feedstock, together with the stiffening effect of canal get by ducts makes that comb present a total mechanical stability until 75°C.

### Resistance to the Middle

High density polyethylene is one of the most resistant plastic materials, when in contact with strong chemicals.

### Easy Installation

The combs are light and flexible, they can be easily removed and replaced. They offer the possibility to be cut to different sizes if is necessary.

### Minimum maintenance

The simple irrigation with high pressure water in a lot occasions will be enough for the cleaning of impurities. In conditions more extreme, the comb resists the application of lime remover, with out alteration.

## Our ADVANTAGES Our DIFFERENCES

- ❖ Flexible plastic fill
- ❖ Very easy to replace  
(The workman will appreciate it)
- ❖ Suitable at almost any tower
- ❖ High efficiency CERTIFIED



**FABRICATION:**

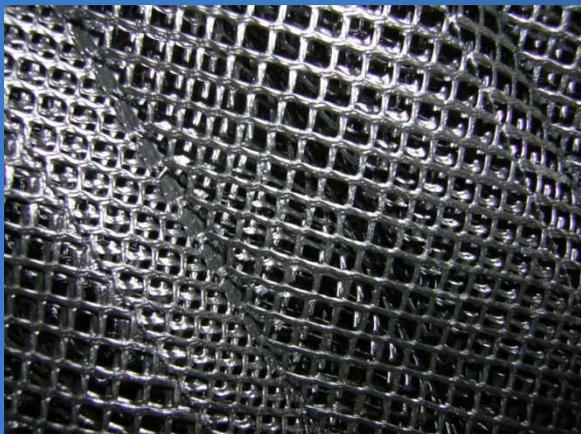
Material

Mesh of high density polyethylene (PEHD).

Assembly System

Automatic proceses of folding and heat sealing, with a special form of triangular section.

In this way are obtained a prefabricated blocks or combs, which may differ in the size of triangular section, thus providing the blocks more or less compactness (interface surface per unit volume).



Otherwise, the canals, always straight, can be either parallel or oblique with respect to airflow. The first form are used on machines with vertical air circulation, as cooling towers, while the comb with oblique canals also called drift eliminator, is used for retention of drag liquid drops and for machines with horizontal air flow, as cooling evaporative, humidification sections of air treatment units, etc.



**TECHNICAL SPECIFICATIONS:**

Mesh

- ❖ High density polyethylene (U.N.E. 62.001)
- ❖ With spacing of 4 x 4 mm, with string 0,7 mm of diameter
- ❖ Weight: 180 g/m<sup>2</sup>
- ❖ Thermal inertia:
  - Distorting temperature under load: 100°C
  - Cracking point: -125°C
- ❖ Maximum inertia:
  - Resistant to media with pH between 4-12
  - Insoluble in organic dissolvent

Pads



MODEL	COMPACTNESS m <sup>2</sup> /m <sup>3</sup>	DIMENSION mm. (**)	DRY WEIGHT	WET WEIGHT	MAXIMUM WEIGHT (***)
<b>VERTICAL CANAL TYPE (Fill)</b>					
RC 100	100	80 x 55	9,00	23,00	90,00
RA 160	160	40 x 45	14,00	37,00	140,00
RI 200	200	40 x 30	18,00	46,00	180,00
RN 240	240	40 x 22	22,00	55,00	220,00
RS 280	280	40 x 16	25,00	64,00	250,00
RF 240	200				
<b>OBLIQUE CANAL TYPE(*) (Drift eliminator)</b>					
SC 100	100	80 x 55	9,00	23,00	90,00
SA 160	160	40 x 45	14,00	37,00	140,00
SI 200	200	40 x 30	18,00	46,00	180,00
SN 240	240	40 x 22	22,00	55,00	220,00
SS 280	280	40 x 16	25,00	64,00	250,00

\* 60° of inclination with respect to the faces of the air inlet /outlet,  
 \*\* Dimensions of the triangular straight section canal ( base x height)  
 \*\*\* Maximum weight in service, including deposits in mesh .