



FILTER BOXES AND ELECTRICALLY HEATED LAUNDERS

Increase the energy and process efficiency of casting



ADVANTAGES OF ONTECOM'S FILTER BOXES AND LAUNDERS

- The use of different heating methods, depending on the objective:
- · radiation;
- · convection;
- · thermal conductivity.
- Available modes:
- · heating the refractories prior to casting;
- · melt loss compensation;
- · heating the melt.
- Special design of the filter cover and the launder for the convenience and safety of the operating personnel;
- Optimum refractory sections and refractory physical properties to minimize heat losses and the capital costs of the customer;
- Flexible launder heating modes control system with the possibility of power distribution along the length of the launders;
- The use of low-voltage electric heating elements, safe if a melt leakage happens.

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DESIGN FEATURES

Ontecom develops, manufactures and supplies filter boxes and launders, which are distinguished by a flexible combined heating system. Ontecom's filter boxes and launders fully meet the technology of the aluminum alloys preparation and reduce the amount of specific energy consumption per ton of finished product.

STRUCTURAL DESIGN:

- filter box: straight-through, twin, by-pass and double filtration (two ceramic foam filters one above the other);
- combined heating combines several heat transfer methods and provides the flexibility of process modes;
- \cdot launders with partial or full compensation of heat loss, as well as the possibility of heating the melt in some sections;
- control system: PLC and HMI based or w/t the use of PLC.



Filter box with a safety cover and a combined heating



Ontecom's filter box control cabinet

PLC and HMI based

ONTECOM'S FILTER BOXES AND HEATED LAUNDERS PROVIDE THE FOLLOWING BENEFITS

- · full or partial heat loss reduction at the start and during the casting eliminates the formation of the crust build-up and improves the product quality;
- · convection pre-heating of the ceramic foam filter with a hot air ensures its full use during the entire casting cycle;
- · the compensation of heat loss in the launders and the rejection of the melt overheating in the furnace prior to casting allow to reduce the specific energy consumption per ton of finished product.



Ontecom's 15" twin filter box with launders. The filter box has a hinged cover, convection heating and the launders have embedded heaters



Filtering AL in Ontecom's 15" twin filter box

Filter and launders heating methods:

- Infrared heaters, located in the cover (hinged or cantilever);
- Convection heaters for preheating a porous ceramic foam filter prior to casting;
- Embedded heaters, mounted between the refractory and the insulation for heating prior to and during casting.



Filtering AL in Ontecom's 15" twin filter box



Ontecom's filter box electric cabinet