

Sidewell Furnace

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With lateral well and recirculation



\ 35 Mton stationary sidewell melter.

Sidewell furnaces are the most advanced melting & alloying reverb melting facilities for aluminium recycling, compared to the conventional chamber and round top-load melt furnace.

They count with an open sidewell chamber with recirculation and stirring system, which:

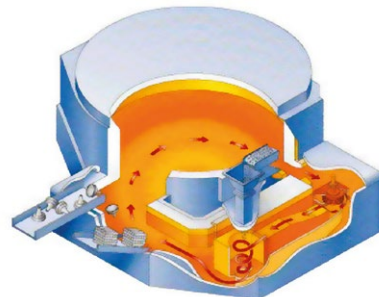
- . Creates a sink-vortex of hot molten aluminium for melting light scraps.
- . Creates a flow of molten metal through the open well for melting heavy scraps.
- . Stirs all the molten metal bath, improving the alloying effect, metal homogeneity and temperature uniformity
- . Sizes from 15 to 150 Mton capacity.

According to customer requests and process needs they can be equipped with:

- . Mechanical or electromagnetical recirculation system.
- . Stationary or tilting designs.
- . Conventional, regenerative or Oxy/Fuel burners.
- . Dry-hearths for sows or ingot bundles melting.
- . Wide range of holding capacities and combined melting rates.



\ Sidewell melter 65 Ton with regenerative burners.



\ Schematic drawing of recirculating effect through the sink vortex and open well.

WHERE ENGINEERING BECOMES HEAT

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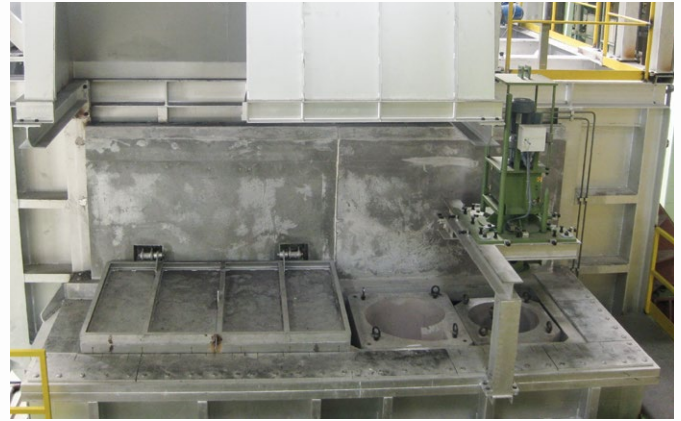
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Stirring effects:

The recirculation of hot molten metal creates a sink vortex able to melt lights scraps, like turnings, chips or UBC, or heavy scraps in the open well, like profiles, fragmented parts, etc, but also stirs all the furnace molten metal bath, and so:

- . Uniform composition of the melt.
- . Uniform temperature distribution.
- . Enhance alloying effect of Si, Mg, Sr, Ti, ...
- . Reduce fuel consumption.
- . Reduce dross generation.



\ Sidewell with ALUSWIRLER® mechanical pump & vortex.



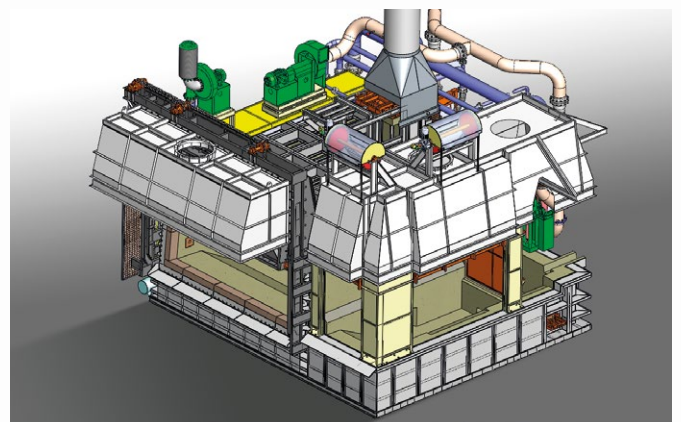
\ Dry hearth for ingot bundles or sows melting.



\ Sink vortex with molten metal on recirculation .



\ Dry hearth and sidewell.



\ 3D layout sidewell.