A step forward in the foundry

Today's market may require a Furnace Set (melting and holding furnaces) with a modest investment cost, a compact lay-out, low maintenance and low gas consumption for production in the range of 5-10 tph starting from solid aluminium and not from molten metal directly from the pot lines.

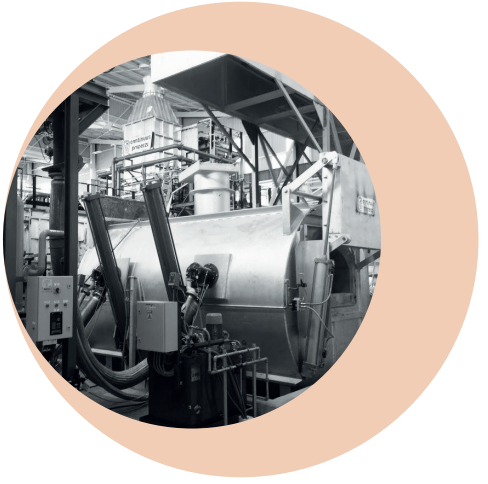
The new Vertmelt Furnace from Properzi gives extraordinary performances nullifying the typical drawbacks of traditional melters:

- They use high maintenance regenerative burners
- They need a big fire room and a shallow bath with strong turbulence for an increased melting rate. This means large dimensions (more steel and more refractory) and some sort of stirring (added cost)
- The big surface of the bath means difficult slagging and the very high temperatures during the melting phase create refractory erosion problems and hydrogen inclusions into the molten aluminium
- Moreover the big charging door that is opened dozens of times before completing the charge is like a big mouth emitting enormous quantities of energy and fumes; fumes that must be collected and treated
- Costly charging and/or slagging machines are needed

Instead, Continuus-Properzi has taken advantage of our 30+ years of experience with shaft melting furnaces and developed the VertMelt family of furnaces with production rates ranging from 2.0 tph to 10 tph, suitable for the production of any aluminium product.

The VertMelt Furnace is a combination of a vertical melting furnace (shaft) with a static receiving/holding chamber that feeds two holding furnaces when alloys are in the production mix.

For a higher melting rate, such as 8.0/12 plus tph, it includes two side-by-side melting towers.



The VertMelt Furnace offers the following main operational advantages:

- Continuous Melting Operation
- Energy efficiency higher than any kind of reverberatory furnace
- Metal losses are almost three times less when compared to a reverberatory furnace
- VertMelt Technology does not need sophisticated and energy wasting stirring systems
- Constant melting rate not disturbed by charging operation
- Lower and controlled emissions
- Easier slagging operation and refractory maintenance
- Reduced hydrogen contamination into the molten aluminium