

AIR

Aluminium In-line Refiner

The most efficient refining system for the aluminium casthouse

How it works

The AIR / Aluminium In-line Refiner is a conventional box that processes molten aluminium between the furnace and the casting pit.

The AIR results from the technology transfer of the A622™ developed by Alcoa in the 70's and modernized since. Its unique design comprises separate processing chambers (one per rotor), an additional flotation chamber, a sealed roof, an airlock system at the box inlet and outlet, and specifically designed spinning nozzles. With such features, the AIR is used to reduce hydrogen, non-metallic inclusions and alkalis in a simple and optimal inline metal refining process.

Thanks to the various options and configurations available, the AIR is a flexible refiner that will exceed all your expectations not only in terms of metallurgical results but also of ease of operation and low maintenance requirements.

The AIR is particularly effective for continuous casting applications, or when few alloy changes are required, or for particular high-end products.

Key features

Metal Quality Improvement

- > High hydrogen removal efficiency.
- > High alkali and inclusion removal.

Productivity Improvement

- > Operates in sealed mode; very little dross formation.
- > Operator-friendly, easy to operate, fully automatic operation.
- > Hood doors allow easy access to each chamber (for cleaning and/or skimming).
- > Tap-out drain allows easy draining of the box.
- > Several options available (tilting box, hood retraction system).

Operation and Maintenance Costs

- > Extended consumable life.
- > Low argon consumption.

Safe Operating Environment

- > Elimination of chlorine, if required, through the use of the FFD / Flux Feeder Device®.
- > Compliance with U.S. Secondary MACT emissions standards.



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Models available



Typical specifications

Models	Capacity Typical metal flow (kg/min)	Main unit Overall dimensions			Argon gas		Chlorine gas (if required)		Electricity Nominal power (kW)
		Length (mm)	Width (mm)	Height (mm)	Inlet pressure (kPa)	Flow (l/min)	Inlet pressure (kPa)	Flow (l/min)	
AIR 1 rotor	50-350	1280	1000	3270	550	70	310	1	25.5
AIR 2 rotors	350-700	2090	1550	3280	550	140	310	2	44.7
AIR 3 rotors	700-1200	2580	1550	3280	550	210	310	3	63.9
AIR 4 rotors	1200-1500	3090	1850	3350	550	280	310	5	83.1



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