

AIR **Aluminium In-line Refiner**

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 rotors. With such features, the AIR is used to reduce hydrogen, non-metallic inclusions and alkalis in a simple and optimal in-line 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.



The Most Efficient 'Box-Type' Refining System for the Aluminium Casthouse

Key features

METAL QUALITY IMPROVEMENT

- > High hydrogen removal efficiency.
- > High alkali and inclusion removal, when chlorine gas or flux (salt) is used.

PRODUCTIVITY IMPROVEMENT

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

LOW 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 for Degasser[®].
- > Compliance with U.S. Secondary MACT emission standards.



Models available



Base model



With hood lifting or/and rotating system



With box tilting in pan or directly in casting trough

Hood lifting and rotating system Human-machine interface (HMI)

Gas mixing panel Power and control panel



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	Capacity Typical metal flow (kg/min)	Static metal Amount (kg)	Main unit (base model) Overall dimensions			Argon gas		Chlorine gas (if required)		Elec	
Models			Length (mm)	Width (mm)	Height (mm)	Inlet pressure (kPa)	Flow (I/min)	Inlet pressure (kPa)	Flow (I/min)	Nomin (ł	
AIR 2 rotors	200-500	1500	2090	1550	3280	550	140	310	2	4	
AIR 3 rotors	500-900	2100	2580	1550	3280	550	210	310	3	6	
AIR 4 rotors	900-1200	2550	3090	1850	3350	550	280	310	5	8	
AIR 5 rotors	1200-1500	3050	4300	1850	3350	550	350	310	6	1(







