

“RFA/S COMBO” SERIES DRYERS

The “Twin-Power” technology

The “RFA/S COMBO” series dryers are the latest evolution of the RF and forced-air circulation combined drying equipment developed by STALAM in the early nineties. In these dryers, independent forced-air drying sections are added to the standard configuration of the RFA/S machines, thus obtaining a truly “twin-power” drying system where it is possible to control and dose independently each form of energy (electromagnetic and conventional) for different products or process requirements, by modulating them through the PLC. Indeed, while it is a matter of physics that the quantity of energy required to evaporate a certain amount of water is fixed, the chemical, physical and dimensional characteristics of the substrate (textile product) will dictate which combination of the two forms of energy can deliver the highest evaporation efficiency and the best product quality at the same time. The unique modular design and the specific PLC software developed by STALAM for the “RFA/S COMBO” dryers will

always allow the end-user to set the ideal combination of radio frequency and hot air (of which both the temperature and the flow can be controlled independently) to optimise the drying process for each substrate.

The “RFA/S COMBO” dryers can be successfully used with all the different textile substrates, but the best results can be achieved with the so called “low density products” such as loose fibres, unwound tow/top slivers, yarns in hanks, etc. where the conventional air circulation system can be more effective in evaporating water, bulking fibres, reducing the internal temperature and minimising the risk of overheating (scorching) especially in delicate and temperature-sensitive products.

The modular construction and the full flexibility in combining RF and air drying as desired, make it easy to size these dryers adequately for any production capacity requirement.

Technical features

Work frequency of generators	(I.S.M.) 27.12 MHz ± 0.6%
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Cooling system of generators	water or air
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Available RF power values (kW)	40 - 60 - 85
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Average evaporation rates	1.6 ÷ 2.2 kg (H ₂ O) / kW(RF)h
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Average drying temperature	60 ÷ 90°C
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“RFA/S 85 kW+HA” COMBO dryer

BENEFITS

- Rapid and uniform drying
- Perfect residual moisture content control (+/-1%)
- No thermal or mechanical stress on fibres
- No discolouring, no yellowing, no strength loss
- More softness, better touch, minimum conditioning time
- Outstanding operational flexibility
- Modular construction to meet every production requirement
- User- and environmentally- friendly operation
- In-line and just-in-time operation
- Instantaneous start / stop (no need for pre-heating / cooling)
- Outstanding reliability even in harsh working environments
- Low overall running cost

MODELS

RFA/S COMBO	PRODUCTION CAPACITY (KG/H) *			DIMENSIONS L(m) x W(m) x H(m)
	synthetics (acr, pes, ny, etc.)	wool and blends (wo/acr, cot/pes, pes/visc, etc.)	silk, cotton, linen viscose	
40 kW + 1-2 HA	450 ÷ 600	200 ÷ 250	100 ÷ 150	9.5-11.5 x 2.4 x 3.3
60 kW + 1-2 HA	650 ÷ 900	300 ÷ 375	150 ÷ 225	11.5-13.5 x 2.4 x 3.3
85 kW + 1-2 HA	900 ÷ 1200	400 ÷ 500	200 ÷ 300	11.5-13.5 x 2.4 x 3.3

* Production capacity may vary depending on product type, loading density, actual moisture content, etc. Contact us for specific information about your product.



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