SOMOS®

ProTec Polymer Processing

SOMOS® RDF Stationary Resin Dryer

Application

The SOMOS® RDF dryer is used for drying hygroscopic polymer pellets. It consists of compact RDF modules which can be flexibly combined, are capable of autonomous operation and have drying capacities of 10 kg/h to 250 kg/h per module.

Compact – flexible – economic

- Maximum drying performance in the smallest possible space thanks to minimized width of all individual RDF modules.
- Customizable operation thanks to seven different sizes of module which can be flexibly linked together for different throughputs.
- Minimized operating costs since the modules only supply the volume of drying air which is actually required.
- Maximum operational and functional reliability. If one RDF module fails, the remaining modules will continue to function, so allowing production to continue.
- Minimized installation costs thanks to absence of feed and return pipework.
- Minimal servicing costs thanks to air filters which are accessible from the front without using tools.
- Safe operation thanks to integrated protective functions and dry air material conveying to processing machinery.

Standard equipment

- Units for stationary installation each consisting of a dry air generator and a high-quality, insulated stainless steel drying bin.
- Specially developed single chamber drying unit for bi-directional operation (drying and regeneration of drying bin).
- Intuitive PLC-based, Industry 4.0-capable controller with materials database for up to 200 formulations and generously dimensioned touchscreen display.
- Energy-saving functions: Super-SOMOS® and ALAV (automatic control of regeneration frequency and adaptive energy input depending on the moisture content of the material for drying & automatic adaptation of air volume to the actual material throughput).
- Pivotable lid adapted for fitting SOMOS® FG200 series conveyors.

Option packages

- Dry air material discharge
  The already dried material is conveyed onward to processing machinery using dry air.
- High-temperature drying
  Additional return air cooler for drying temperatures of up to 180°C.
- Low-temperature drying
  Additional feed air cooler for drying temperatures of down to 40°C.
- Dew point measurement
  Dew point meter with pipework and wiring for permanent dew point monitoring.
- Feed air filtration
  Ultra-fine feed air filter with pipework.
- Drying bin filling level measurement
  Kit for measuring the filling level in the drying bin.
- Control cabinet air conditioning
  Additional air conditioning for specific ambient condition requirements.
- Connection to non-standard supply voltages
  Additional transformers enable connection to supply voltages differing from the standard 3~400VAC/50Hz.
- Central system operation
  Display and control for all connected modules using a central touchscreen display.

Accessories

- Suction boxes
- Suction manifolds
- Adapter pipe lengths and blanking plugs

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RDF STATIONARY RESIN DRYER

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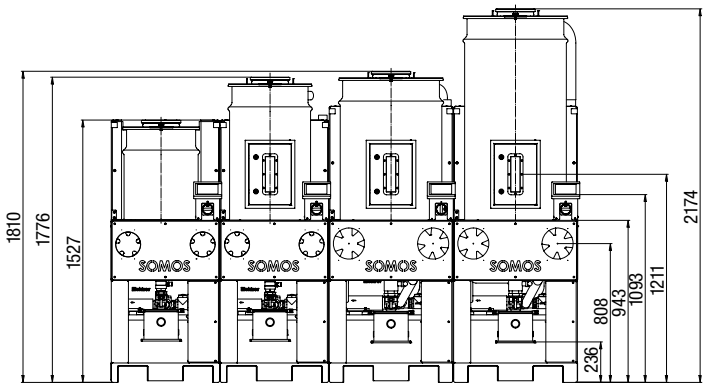
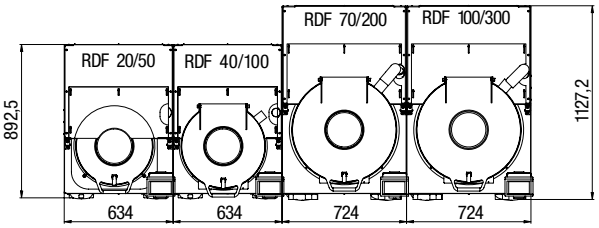
Technical Data





Size	RDF 10	RDF 20	RDF 40	RDF 70	RDF 100	RDF 140	RDF 180
Drying air volume	10 m³/h	20 m³/h	40 m³/h	70 m³/h	100 m³/h	140 m³/h	180 m³/h
Material tank volume	30 liters	50 liters	100 liters	200 liters	300 liters	400 liters	600 liters
Material tank construction	Insulated stainless steel, no cleaning door, pivotable lid		Insulated stainless steel, with cleaning door, pivotable lid				Insulated stainless steel
Outlet: Kamlock coupling	1.5”	1.5”	1.5”	2”	2”	2.5”	2.5”
Drying air temperature (standard models)	60–140°C	60–140°C	60–140°C	60–140°C	60–140°C	60–140°C	60–140°C
Drying air temperature (high-temperature drying)	140–180°C	140–180°C	140–180°C	140–180°C	140–180°C	140–180°C	140–180°C
Drying air temperature (low-temperature drying)	40–60°C	40–60°C	40–60°C	40–60°C	40–60°C	40–60°C	40–60°C
Achievable residual moisture content	< 100 ppm < 0.01%	< 100 ppm < 0.01%	< 100 ppm < 0.01%	< 100 ppm < 0.01%	< 100 ppm < 0.01%	< 100 ppm < 0.01%	< 100 ppm < 0.01%
Cooling water temperature (high-temperature drying)	8–12°C	8–12°C	8–12°C	8–12°C	8–12°C	8–12°C	8–12°C
Cooling water requirement (high-temperature drying)	< 0.3 m³/h	< 0.3 m³/h	< 0.3 m³/h	< 0.4 m³/h	< 0.4 m³/h	< 0.7 m³/h	< 0.7 m³/h
Air blower power	0.37 kW	0.37 kW	0.37 kW	1.6 kW	1.6 kW	2.2 kW	2.2 kW
Heater power	1.1 kW	4.5 kW	4.5 kW	6.6 kW	6.6 kW	13 kW	13 kW
Supply voltage	3~400VAC/50Hz						
Empty weight	185 kg	190 kg	205 kg	240 kg	260 kg	360 kg	380 kg
Coating (standard models)	RAL 5018 RAL 7016	RAL 5018 RAL 7016	RAL 5018 RAL 7016	RAL 5018 RAL 7016	RAL 5018 RAL 7016	RAL 5018 RAL 7016	RAL 5018 RAL 7016
Dimensions (W x D x H)	634 x 900 x 1,530	634 x 900 x 1,530	634 x 900 x 1,780	724 x 1,130 x 1,810	724 x 1,130 x 2,170	950 x 1,370 x 2,030	950 x 1,370 x 2,530

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