



RTM Automatic standardizers



AUTOMATIC STANDARDIZERS REDA

The modern and efficient solution for milk and cream in-line standardization



Application

Normally milk is standardized through adjusting the fat content in the milk and cream by mixings directly in the storage tanks. This means losses of time and additional costs for the necessary handlings and controls. Moreover it results very difficult to obtain the exact concentration of the cream and to avoid remainings at the end of the standardization process.

REDA automatic standardizers of the RTM series are specifically designed to get both milk and cream in-line standardization at the same time. This process is made without needing to know the fat content of the milk at the inlet. These units are conceived to work together with a skimming separator and in-line with the pasteurization plant.



Working system

Speed regulation is an exclusive feature of the RTM standardising units: in fact the system pre-sets a regulation of the flows (according to the required standardization rate) during the system starting and sterilization phase and performs the fine regulation when the milk arrives. Density measurers, placed on milk and cream line, assure a very high precision level and accuracy in standardization thanks to the automatic regulation system that keeps in mind the real operative conditions. In every moment the system recognizes the fat level into the incoming milk and calculates the flows of milk and cream, acting by consequence on automatic regulation valves. The automatic calibration system operates on the standardising calculation curves to adjust any deviation from the theoretical data, permitting the regulation of the standardising system without the intervention of skilled technical personnel.



Advantages of the automatic standardization

In the latest milk processing plants the automatic standardization with RTM units of REDA gives several advantages compared to manual methods:

- Very high precision in the final result: Milk $\pm 0.01\%$, Cream $\pm 0.2\%$.
- Non-influence of season variations in the raw milk fat content.
- Fast regulation speed.
- Constancy in the result.
- Quality in the final product without comparisons.
- No need of skilled technical personnel.
- Energy and time saving.
- Increase of the volumes to be processed.
- Diversification of the range of products.



OPERATIONAL CHARACTERISTICS

Available functions	: Standardization (milk and cream), Skimming (only cream standardization), Clarification, CIP cleaning.
Standardization rates	: MILK = setting from 1% to 4% (from 0.3% to 4% with LOW FAT MILK option). CREAM = setting from 25% to 65% (from 8% to 65% with LOW FAT CREAM option).
PARTIAL HOMO option	: Predisposition for the connection with a "partial" Homogenizer.
RTC version	: Simplified version that controls only the cream fat content. The main application of this version is for the whey skimming, but it can also be applied in the milk skimming.
Special versions	: Upon request, special versions are also available able to standardise by starting from fat storage tanks (without the use of a skimming separators).

AVAILABLE OPTIONS

"LOW-FAT CREAM" OPTION	It allows to get a low-fat cream (up to 8%).
"LOW-FAT MILK" OPTION	It allows to standardise the milk when values below 0.8% are requested (minimum 0.3%).
"PARTIAL HOMO" OPTION	It allows the insertion of a partial homogenizer in-line with the standardizer.
"TOTAL HOMO" OPTION	It allows the insertion of a homogenizer in-line with the standardizer. Total Homo system also guarantees constant flow and pressure to the homogenizer even during the discharges of the separator.
"CREAM ADDING" OPTION	The system allows the in-line cream injection from an external source in order to enrich the milk in comparison to the fat content of the raw milk.



STANDARDIZATION PARAMETERS

	from	to	precision	with self-adjusting system
MILK fat content	1%	4%	$\pm 0.03\%$	$\pm 0.01-0.02\%$
MILK fat content with "Low-fat milk" option	0.3%	4%	$\pm 0.03\%$	$\pm 0.01-0.02\%$
CREAM fat content	25%	65%	$\pm 0.5\%$	$\pm 0.2\%$
CREAM fat content + "Low-fat cream" option	8%	65%	$\pm 0.5\%$	$\pm 0.2\%$

DATA SHEET

MOD.	FLOW CAPACITY	DIMENSIONS		
		Length (mm)	Width (mm)	Height (mm)
RTM50	5.000	850	1200	1800
RTM100	10.000	850	1200	1800
RTM150	15.000	850	1800	1900
RTM200	20.000	850	1800	1900
RTM250	25.000	850	1800	1900
RTM300	30.000	1200	2000	1900
RTM350	35.000	1200	2000	1900
RTM500	50.000	1200	2000	1900

Remarks:

- Flow capacities are expressed in liters/hour.
- The technical data contained in this brochure are indicative and not binding. REDA reserves the right to change/adapt the technical and dimensional information of the products included in this presentation without notice and without liability to third parties.

