

MULTI-ZONE CHIPS FRYER

The frying stage of the potato chips process is the part where texture, color, bite, crispiness and overall quality is defined. Rosenqvists Multi-Zone Chips Fryer system uses the minimum of oil, resulting in high quality potato chips with a longer shelf life.

Low total oil volume results in a low oil turnover per minute and lower FFA (Free Fatty Acids) values. The hood is designed so that a steam cover will be formed above the oil surface, protecting it from the surrounding air. Protecting the oil from light and oxygen is an essential criterion for the quality of your final product.

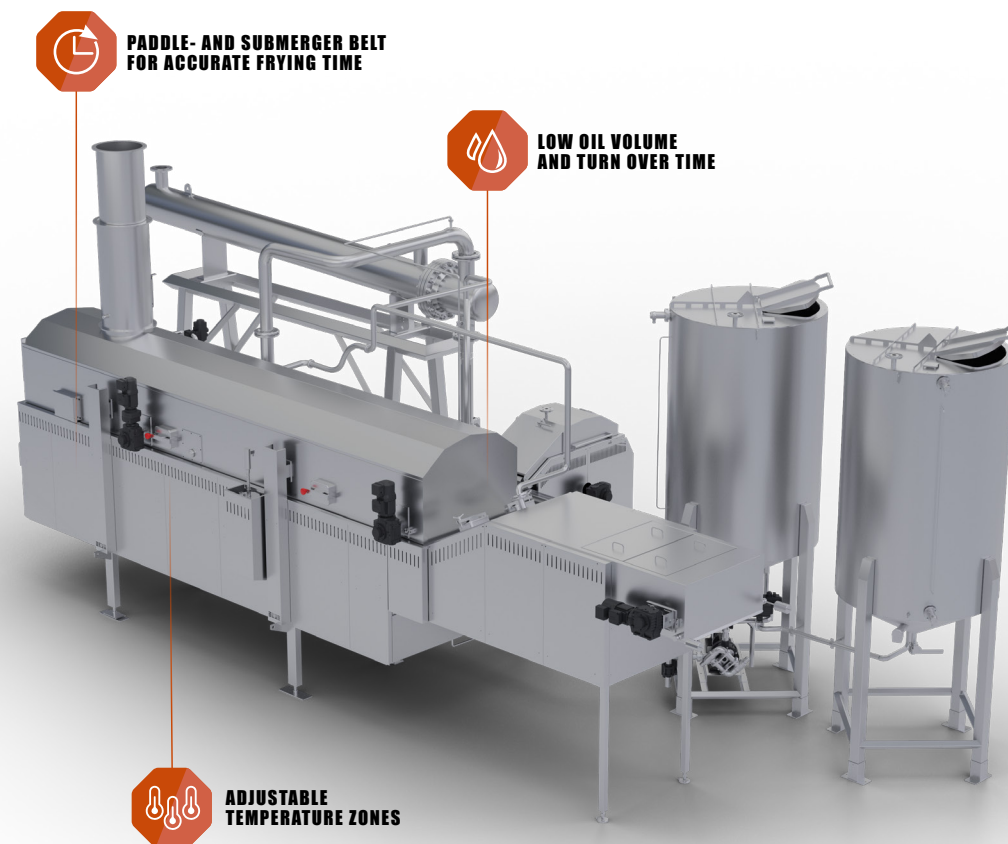
The Multi-Zone frying system consists of five main parts:

- Fryer pan
- Continuous drum filter
- Oil circulation pump
- Heat exchanger (for thermo oil or high pressure steam)
- Daytank
- Discharge holding belt

The frying pan has multiple oil in and outlets. The temperature profile along the pan is easily set and adjusted. For separation of the incoming slices a

flow-injection-side-turbulent-system (FIST) is installed in the first part of the fryer pan. In the final frying zone, a cold-adjustable-temperature-zone or a CATZ-pump is installed making it possible to reduce the frying temperature slightly in the end where the risk of Acrylamide build-up is highest. In the fryer hood, a paddle belt and a submerger belt are mounted. The paddle belt maintains an accurate frying time in the first section. The submerger belt conveys the product bed with a precise regulated speed.

All of the oil in the frying system is filtered every 30 – 45 seconds through the continuous drum filter. A perforated rotating steel drum filters the oil. Particles are scraped off and removed by a waste auger. The heat exchanger, placed close to the fryer, can be heated by thermo oil or high-pressure steam. By adjusting the temperature profile and retention times in the different sections of the fryer pan, normal chips and batch or kettle-style chips can be produced. Automatic-set point-temperature-adjustment (ASTA) is fully integrated in the controls of the frying system making it possible to cope with production variations.



MULTI-ZONE CHIPS FRYER ADVANTAGES

Low oil volume and
turn over time

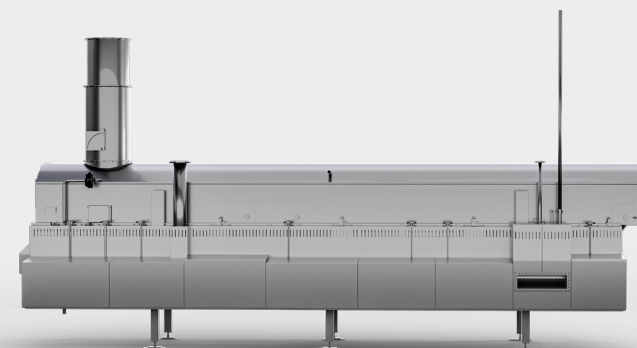
Paddle- and submerger belt for
accurate frying time

Adjustable temperature zones

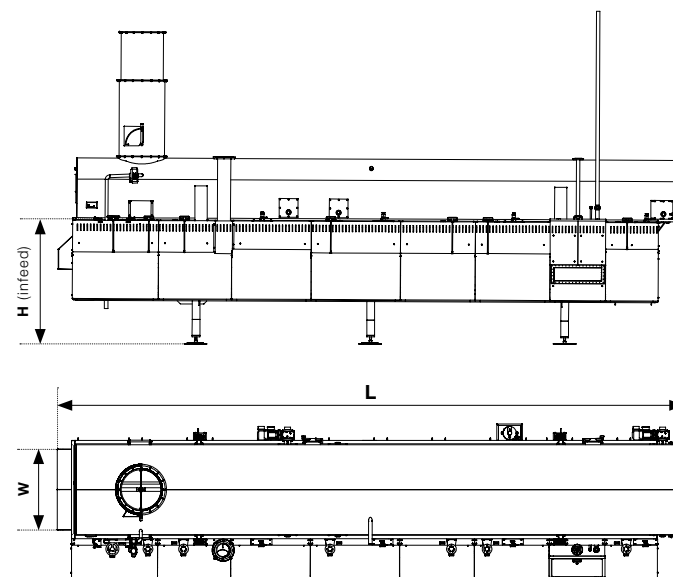
FRONT/SIDE



SIDE



MULTI-ZONE CHIPS FRYER	CAPACITY (kg/h)	L (mm)	W (mm)	H INFEED (mm)	POWER (kW)	OIL CIRCULATION (l/min)	OIL VOLUME IN FRYER (l/min)
CF05	500	5900	1000	1705	14,5	2400	1700
CF07	750	7100	1200	1705	22	3500	2500
CF10	1000	9600	1200	1705	27	4800	3300
CF15	1500	11100	1500	1800	30	7000	4500
CF20	2000	13400	1700	1980	44	9500	6000
CF30	3000	15400	2000	1980	85		



LOW OIL VOLUME
AND TURN OVER TIME



PADDLE- AND SUBMERGER BELT
FOR ACCURATE FRYING TIME



ADJUSTABLE
TEMPERATURE ZONES

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