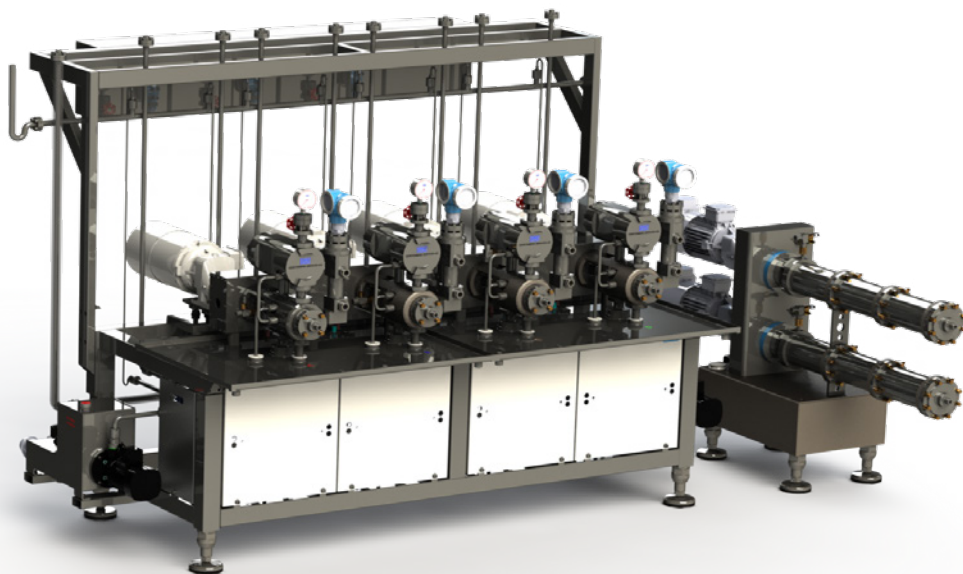




Polaron is a registered trademark of Gerstenberg Services A/S and covers the new series of advanced high pressure crystallisation equipment.



GERSTENBERG POLARON PILOT PLANT

A flexible tubular scraped surface heat exchanger pilot plant for the fat crystallisation industry.

Polaron pilot SSHE		A	A+B	A+B+C	A+B+C+D	
Puff pastry margarine / To = -20°C	CO ₂	kg/h	N/A	94	141	188
Table margarine / To = -20°C		kg/h	94	188	282	376
Shortening / To = -20°C		kg/h	141	282	423	564
Puff pastry margarine / To = -20°C	NH ₃	kg/h	N/A	66	99	132
Table margarine / To = -20°C		kg/h	67	134	201	268
Shortening / To = -20°C		kg/h	100	200	300	400
Heat exchange surface	m ²	0.036	0.072	0.108	0.144	
Annular space	mm	5				
Process cylinder diameter x length	mm	ø 65.5 x 195				
Product volume per cylinder	l.	0.36				
Rows of scrapers	pcs.	2 per cylinder (steel/plastic)				
Max. working pressure, product side	bar	120				
Max. working pressure, refrigerant side	bar	72				
Cooling requirements, CO ₂ at -20°C	kW	7.5	15	22.5	30	
Cooling requirements, NH ₃ at -20°C	kW	5	10	15	20	
Rotor speed at 50 Hz	rpm	300-1,200				
Gear motors for puff pastry margarine	kW	5.5	5.5+5.5	5.5+5.5+5.5	5.5+5.5+5.5+5.5	

Polaron pilot pin rotor machine		3.5/1.0	7.0/2.0	10.5/3.0
Max. pressure	bar	120	120	120
Cylinder volume (max. 3 cylinders)	l.	3.5/1	7/2	10.5/3
Pin rotor speed	rpm	300-1,200	300-1,200	300-1,200
Gear motor	kW	4	4	4

All above capacities are nominal values and may vary depending on product composition and flow rate.

With the Polaron pilot plant you can carry out tests to improve your existing products and to develop new recipes and do small-scale productions for market tests.

Examples of products

- table margarine
- puff pastry margarine
- shortening
- ghee
- anhydrous milk fat
- low fat butter