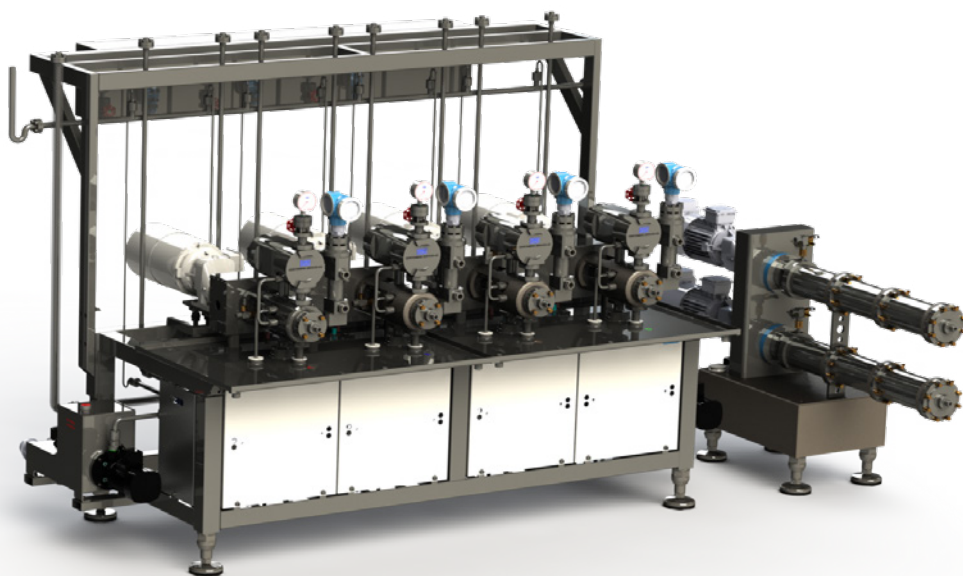




*Polaron is a registered trademark of Gerstenberg Services A/S and covers the new series of advanced high pressure crystallisation equipment.*



## 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 <sub>2</sub>	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 <sub>3</sub>	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 <sup>2</sup>	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.	0.6				
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 <sub>2</sub> at -20°C	kW	7.5	15	22.5	30	
Cooling requirements, NH <sub>3</sub> 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	

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

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.