

GERSTENBERG POLARON SSHE XL & CXL

DESIGNED FOR PERFORMANCE AND FLEXIBILITY

The Polaron SSHE is engineered to handle demanding fat crystallisation processes with a working pressure of up to 120 bar depending on product type and capacity. Its versatile design makes it suitable for a wide range of applications, whether you are producing margarine, shortening, or other crystallised fats and butter products.

EFFICIENT COOLING WITH NATURAL AND TRADITIONAL REFRIGERANTS

The Polaron SSHE is specifically designed for direct cooling with CO₂ (R744): a natural, sustainable refrigerant gaining ground as the preferred choice in modern food production. By using CO₂, the system offers unmatched heat transfer efficiency, enabling faster, more precise temperature control and reducing overall energy consumption.

This advanced cooling method not only improves process stability and product consistency but also contributes to lower operational costs and a smaller environmental footprint. CO₂ is a non-ozone-depleting, low-GWP (Global Warming Potential) refrigerant, making it an ideal solution for future-proof, eco-conscious production facilities.

The efficient heat transfer and scraping action of the Polaron SSHE ensure consistent texture, structure, and product quality, whether you are producing standard recipes or specialised formulations.

The Polaron SSHE can also be supplied for NH₃ (R717) as refrigerant.

COMPLIANCE

The Polaron SSHE is constructed in conformity with the European Machinery Directive 2006/42/EC and with the European Regulation (ER) 1935/2004 on equipment, items and materials that are in contact with food. The pressure vessel is certified in accordance with the European Pressure Equipment Directive (PED) 2014/68/EU and ASME. Other certifications for unfired pressure vessels are available on request.

OPTIONS:

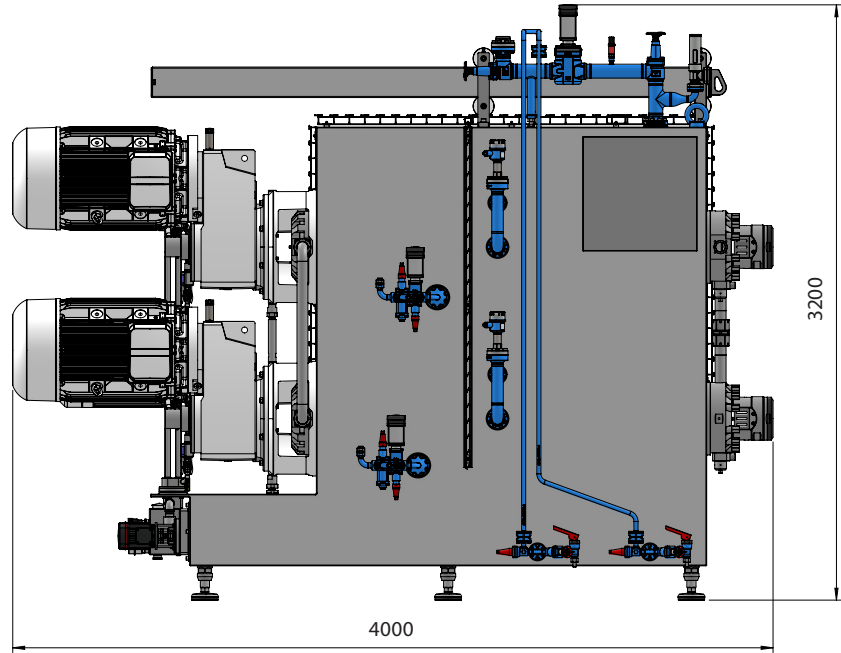
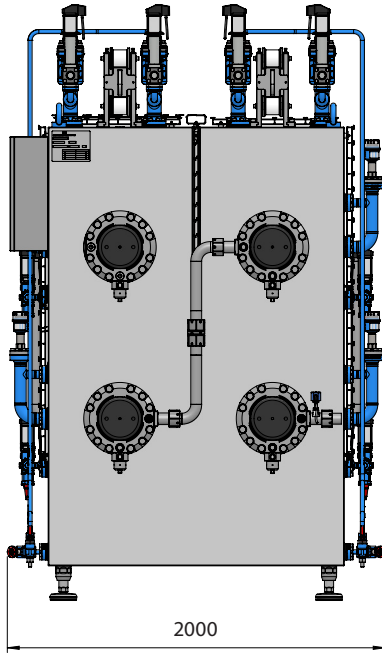
- Flushed seals
- Automatic drain valves
- SAF process cylinders
- Scrapers in PEEK, stainless steel or Stellite

EXAMPLES OF PRODUCTS

- Table margarine
- Puff pastry margarine
- Industrial margarine
- Shortening
- CBS (Cocoa Butter Substitute)
- Ghee
- AMF (Anhydrous Milk Fat)
- Low fat butter
- Texturised butter

GERSTENBERG POLARON SSHE XL & CXL

**POLARON SSHE XL A+B+C+D
FOR NH₃**



Gerstenberg Polaron SSHE XL & CXL		A	A+B	A+B+C	A+B+C+D	A+B+C+D+E	A+B+C+D+E+F	
Puff pastry margarine at -20°C	CO ₂	kg/h	N/A	3,990	5,980	7,980	9,970	11,970
Table margarine at -20°C		kg/h	3,990	7,980	11,970	15,960	19,950	23,940
Shortening at -20°C		kg/h	5,980	11,970	17,950	23,940	29,920	35,910
Puff pastry margarine at -20°C	NH ₃	kg/h	N/A	2,850	4,270	5,700	7,120	8,550
Table margarine at -20°C		kg/h	2,850	5,700	8,550	11,400	14,250	17,100
Shortening at -20°C		kg/h	4,270	8,550	12,820	17,100	21,370	25,650
Heat exchange surface		m ²	1.52	3.04	4.56	6.08	7.6	9.12
Annular space		mm	10					
Process cylinder diameter x length		mm	ø250 x 2091					
Product volume per cylinder		l.	16.6					
Product piping connections		mm	DN50					
Max. working pressure, product side		bar	120					
Cooling requirements for table margarine, CO ₂ at -20°C		kW	155	310	466	622	780	935
Cooling requirements for table margarine, NH ₃ at -20°C		kW	120	240	360	480	600	720
Rotor speed at 50 Hz		rpm	260					
Gear motors for puff pastry margarine		kW	N/A	55+75	55+55+75	55+55+75+75	55+55+75+75+75	55+55+55+75+75+75
Gear motors for table margarine		kW	45	37+45	37+37+45	37+37+45+45	37+37+45+45+45	37+37+37+45+45+45
Gear motors for shortening		kW	30	30+30	30+30+37	30+30+37+37	30+30+37+37+37	30+30+30+37+37+37
Water heater capacity/volume		kW/l.	18/160	2x18/160		4x18/160		
Motor for water heater pump		kW	0.37					

The above capacities are nominal values and may vary depending on product composition.