

12,500 LPH HTST MILK PASTEURISER



- A fully automatically controlled Pasteuriser that requires only touch to start the Pasteurising sequence with automatic stop and flushing after Pasteurisation.
- Automatic Detergent/Acid controlled wash, rinse and flushing program.
- Capacity of 12,500 LPH Milk. Milk temperature in at 3°C, then heating to 73/75°C by regeneration and hot water at 77°C, holding for a minimum of 16 seconds for Pasteurizing, finally, cooling to 3°C by regeneration only and chilled water.
- **ICS 116 kW Chiller** - Chilled water plant

Milk Pasteuriser

Includes

Stainless Steel 4 KW Product Pump	1
Hot Water Pump	1

12,500 LPH HTST MILK PASTEURISER

3 overheat protections and hot water circulating pump	1
Automatic heating control valve and circulating pump	1
Holding Tube with minimum 16 sec Holding Time	1
Stainless Steel Skid	1
Balance Tank with Automatic Level Controls	1
Automatic Flow Diversion Valve V1	1
Automatic Water inlet valve V2	1
Automatic drain/flushing valve V3	1
Automatic milk Inlet Valve V4	1
Automatic Hot Water Control Valve	N/A
Detergent and acid pumps	2
Conductivity sensor for checking concentration levels of detergent	1
Level Sensors	1
Level Transmitter	1
Automatic CIP draining valve V7	1
Flow meter for automatic batch control	1

Control Panel Contents:

Three Pole Main Isolator Switch	1
380/400 V Power Supply / 24V DC Power Supply	1
Main control PLC with 7" HMI	1
Air Solenoid Control Manifold	3
Front mounted USB port for data logging and recording info via macro	1
Hot Water Temperature Control	1
Safety overheat contractor for heating element	1
Starter for hot water circulation pump	1
Inverter/VSD for Pasteuriser product pump	1
Control for product divert and drain valve	1

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Internal wiring	1
Temperature probes	3
Terminal Rails	1
Fuses	Inc
Electrical Drawings	1

Optional Extras

To allow Pasteuriser to be heated via steam. This is to include steam reducing valve, steam control valve, brass heat exchanger.	Added
Over pressure system to include extra provision in spacing grid, new 5.5kW over pressure pump at end of regen section, back pressure valve on milk outlet of Pasteuriser. Pressure transmitter on inlet to regen section and outlet of Pasteuriser for monitoring over pressure of Pasteurised milk sections of the Pasteuriser.	Added
Flow plate for raw milk in from Tanker 1 & Pasteurised milk out to Tanker 2. This flow plate will come with proximity switches.	Added
Sample points (2 of these)	Added

ICS 116 kW Chiller

116 kW chiller to cool 12,500 Litres of milk from 11 C down to 3 C	Fluid Type:	Water/Glycol
Fluid Supply Temperature:	1C	
Fluid Return Temperature:	5C	
Suitable for 3ph supply		
Dimensions: 2327 x 2250 x 1854mm (L x W x H)		

TECHNICAL SPECIFICATION

Data : 19-01-2021

Proposal : 100007575

MODEL:CH10-HP2C-291

ITEM:1

THERMAL PROGRAM

Section	Fluid	Flow Rate	Temperature (°C)	Press drop (bar)	Location Inlet / outlet
I 98.96 kW	Water	20 000 l/h	78,0 → 73,6	0,84	S1 → S3
	Milk	12 500 l/h	75,0 ← 67,8	0,38	S2 ← M14H
II 890.66 kW	Milk	12 500 l/h	75,0 → 10,2	0,89	M13H → ---
	Milk	12 500 l/h	67,8 ← 3,0	0,90	M14V ← M24H
III 98.96 kW	Milk	12 500 l/h	10,2 → 3,0	0,38	--- → E1
	Water	21 000 l/h	5,0 ← 1,0	0,96	E4 ← E2

MATERIALS

FRAME	PLATES		GASKETS
Material: AISI 304	Material: AISI316 L	Thickness (mm):0,5	Material:NBR-SI

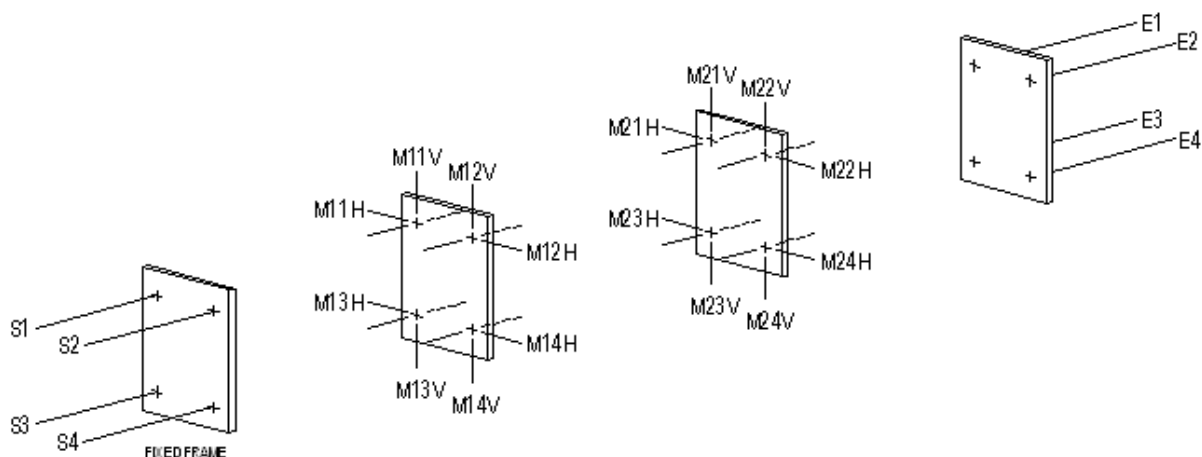
CONSTRUCTION

Connections	Design Pressure (MpaG)	Side A	1,00	Side B	1,0
MALE: Tri clamps 2+1/2 "	Test Pressure (MpaG)		0,94		0,94
	Design Temperature (°C)		100		100

PED classification: FG:2 ; TAB 4; Category SEP

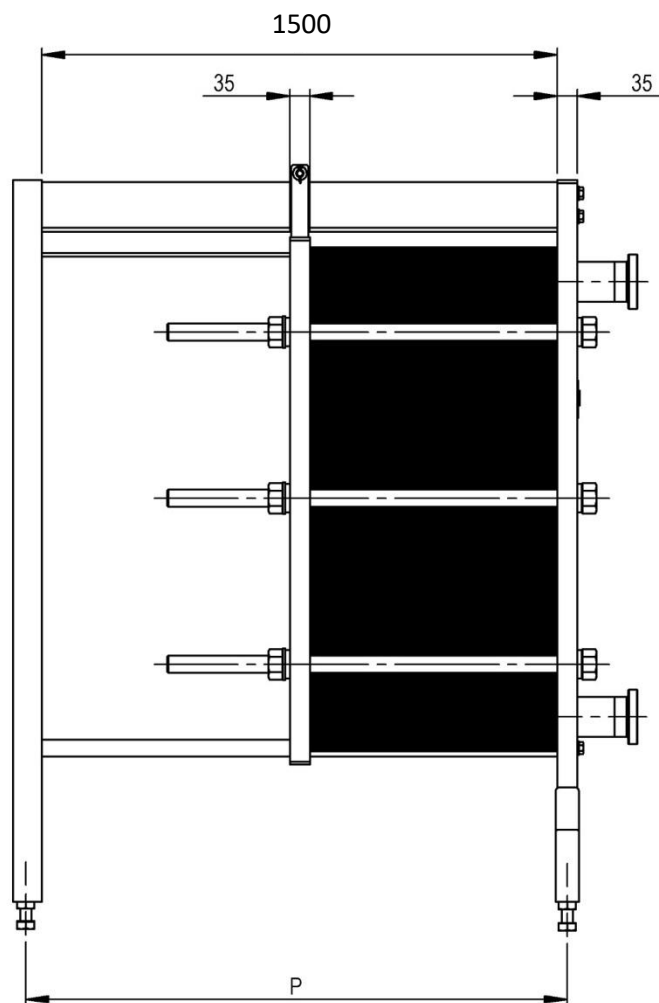
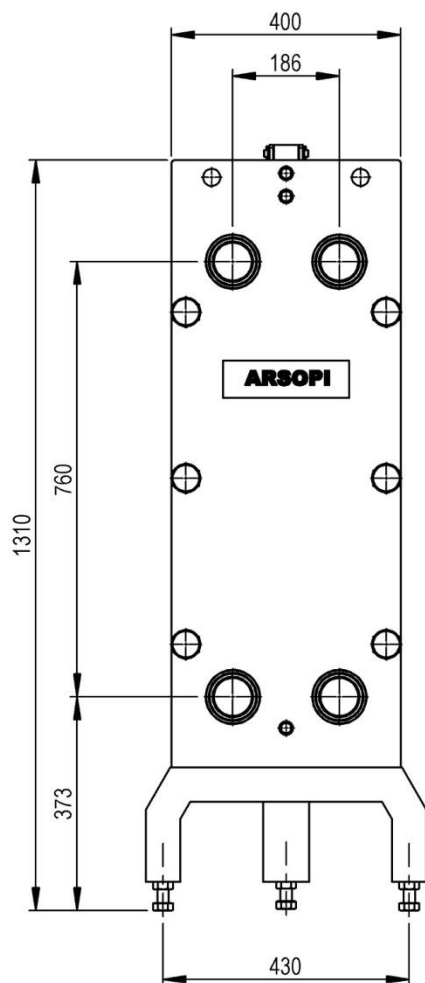
Accessories:

Inlet / outlet location



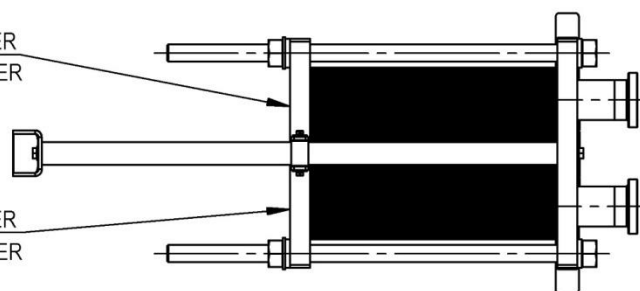
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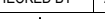
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E2 - UPPER
E4 - LOWER

E1 - UPPER
E3 - LOWER



	DATE	NAME	MODEL CH10-HP2C-291				
DRAWN BY	2016.11.15	P. Bastos					
CHECKED BY	2016.11.15	H. Silva					
		SCALE	PLATE HEAT EXCHANGER		REV.:	SHEET	LANGUAGE
					1/1	[en]	

Technical Specification Aptus ATXA 045

General data

Unit size	045	
Efficiency level	HE	
Acoustics level	SN	
Altitude	0	m
Sound power level	87	dB (A)
Sound pressure level (10m)	56	dB (A)
Number of compressor(s)	3	
Number of capacity step(s)	3	
Number of fan(s)	2	
Fluid type	Propylene glycol	
Number of refrigerant circuit	1	

Performance data

Gross cooling capacity	116.65	kW
Net cooling capacity	117.92	kW
Net EER	3.44	
NET ESEER at Eurovent conditions	4.88	
Entering water temperature	5	°C
Leaving water temperature	1	°C
Water delta temperature	4	°C
Water flow rate	6.80	L/s
Entering air temperature	28	°C
Water pressure drop	83.10	kPa
Glycol concentration	25	%
Fouling factor	0.01762	m ² .K/kW

Electrical data

Gross power input	34.28	kW
Net power input	34.61	kW
Current amps	60.0	A
Unit start-up amps	266	A
Maximum amps	106.9	A

Physical data

Length	2,327	mm
Width	2,250	mm
Height	1,854	mm
Operating weight	1,797	kg
Water connections	3	in
Refrigerant charge	15	kg
Refrigerant	R410A	

Acoustic data

	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Sound power level	67	84	81	80	82	77	68	62
Sound pressure level at 10m	37	53	50	49	51	46	38	31

Optional Hydraulic module

Pump power input – High pressure pump(s)	3.00	kW
Pump amps – High pressure pump(s)	5.9	A
Available head pressure – High pressure pump(s)	155.40	kPa
Water tank volume	444	L
Expansion tank volume	35	L
Water connections – with hydraulic module	3 OD	in

Dimensional Drawing

