

II. TECHNOLOGICAL LINE FOR TOMATO PUREE AND FRUIT CONCENTRATES – for 6000 kg/h

I.1. PREPARING AND JUICE YIELD

Capacity 6000kg/h

The receiving silos and the water transportation are customers delivery

II.1.1 1 pc. VERTICAL ELEVATOR WITH HOPPER

For the conveyance of waste fruit.

Mainly comprising: Receiving hopper, frame, plastic conveyor-belt with plastic cross-bars. Motor with speed variator and supports. Housing made of stainless steel

Dimensions: 4000x600x2440 mm

Power: 1.5 kW

II. 1.2 1 pc. WASHIG-SORTING MACHINE

For washing, rinsing and inspecting of the tomatoes.

Mainly comprising : washing pan, spray-nozzle set, bar conveyor belt(aluminium bars). Lateral guiding profiles, frame made of mild-steel, painted. Gear-motor with supports.

Capacity: 8000 kg/h

Dimensions: 8400x2390x1650 mm

Power: 2.2 kW

II.1.3 1 pc. GRINDING MILL

For crushing/grinding the incoming fruit. Complete with housing, shaft with grinding elements and bearings, flanged connection-pieces, drive transmission and closed alternating-current motor, all metal parts in contact with the product are made of stainless steel.

Capacity: 5000 - 8000 kg/h

Dimensions: 390x800x385

Power: 5.5 kW

II.1.4 1 pc. SCREW PUMP WITH HOPPER

Type MONO, complete with base-plate, coupling, speed variator and closed electric motor. All metal parts in contact

with the product are made of stainless steel.

Capacity 2.4 - 10m³/h

Dimensions: 2083x276x463 mm

Power: 3 kW

II.1.5 1 pc. HEAT EXCHANGER

For heating of the crashed tomatoes (cold break). Completed with temperature control system. All metal parts in

contact with the product are made from stainless steel.

Capacity: 8000 kg/h

Dimensions: 6000x800x1517 mm

II.1.6 1 pc. STRAINING SECTION - TURBO

For straining of the heated mash.. Mainly comprising: one cylindrical strainers - ϕ 0.8, housing, gear-motors for each

strainer, high pressure cleaning system, frame and operating platforms, ladder and handrails. All metal parts in

contact with the product are made from stainless steel.

Capacity: 8 000 kg/h
Dimensions: 4000x3160x4000 mm
Power: 30 kW

II.1.7 1 pc. SCREW CONVEYOR

For discharging the waste from the straining section. Mainly comprising: Conveyance-housing, screw with

shaft, support-bearings, gear-motor and supports. Housing and screw in stainless steel.

Dimensions: 4000x306x300 mm
Power: 1,5 kW

II.1.8 1 pc. OPENED INTERMEDIATE JUICE TANK

Vertical execution with supporters, including all necessary connecting-pieces, valves Welding seams ground inside, brushed outside, pickled.

All metal parts in contact with the products are made of stainless steel.

Capacity 600 l

II.1.9 1 pc. CENTRIFUGAL PUMP

For transportation of the juice to the feeding tanks. Sanitary execution, pump complete with mounted, closed alternating-current motor. All metal parts in contact with the product are made of stainless steel.

Capacity: up to 20 m³/h
Power: 4 kW

II.1.10 ELECTRICAL PANEL

Includes all electrical-control panels necessary for the line.

II.2.CONCENTRATION

II.2.1 2 pc. JUICE TANKS WITH AGITATORS

Vertical execution, including all necessary connecting-pieces, manhole, cleaning nozzle, valves and level indicator.

Welding seams ground inside, brushed outside, pickled. All metal parts in contact with the products are made of

stainless steel. Completed with lateral agitator, glass level indicator.

Capacity: 5 000 l
Power: 4 kW

II.2.2 1 pc. EVAPORATING INSTALATION

To concentrate the juice by evaporating water

EVAPORATORS/SEPARATORS

3 Evaporator bodies - for the continuous concentration of the product by means of fresh steam or vapours respectively. Mainly made of the following parts: Calandria of evaporator body, Set of evaporator tubes, Tube plates for head- and bottom-parts, connecting pieces.

3 Vapor-Separators - connected with the evaporator bodies, equipped with all necessary connecting pieces, cleaning spray ball and sight glasses.

3 PRODUCT RECIRCULATING PUMPS - specially designed for viscous products. For recirculation of the product and for conveying through the stages.

2 CONDENSATE PUMPS - centrifugal pumps in sanitary execution. For removing the condensate from the evaporators

STEAM SATURATOR - For saturation of the dry steam.

MIXING CONDENSATOR - for condensation of the residual vapors. Equipped with the necessary spray nozzles, all connecting pieces for the vapors, the down pipe, the cooling water.

2 VACUUM PUMPS - to provide and keep the vacuum in the system

STEEL FRAMEWORK - for the supporting of the evaporators and separators, fixation of piping, to provide easy operation and maintenance. Equipped with operating platforms, ladders, handrails, safety parapets, walk grids.

CONTROL PANEL - housing made of carbon steel, painted. Equipped with all necessary power elements (main switch, power distributors, contactors for the motors and power contactors) and control elements(level measuring units, steam controller etc.). The panel section is completely wired.

SET OF CONTROL SYSTEMS

STEAM PRESSURE CONTROL- control valve with membrane drive, PI-controller, pressure transmitter, compressed air reducing station, compressed air filter

REFRACTOMETER - for regulating the dry content of the concentrate

3 Two way pneumatic valves, pressure indicators, thermometers, level controllers

SEALING WATER SYSTEM - for the operating of the pumps which are equipped with mechanical seals.

PIPING and FITTINGS - complete set.

Technical Characteristics:

Capacity (processed tomatoes)	t/24h	150
Product capacity		
28-30 °Brix	kg/h	1 000
Evaporating capacity	kg/h	5 000
Steam consumption	kg/h	2 700
Water consumption		
t = 18 °C	m ³ /h	78
t = 28 °C	m ³ /h	195
Steps		2
Installed Power	kW	72
Dimensions	mm	9500x4400x12700

II.2.3. COOLING WATER CYCLE

- one cooling tower – 1 200 000 kcal

- circulation pumps – 2 pcs
- electrical panel

All pipes and fittings for the cooling cycle are not included in the offer – it is matter of projecting the plant, The concrete basins for the recycling water are mater of building in place as well.

II. 4. PIPES AND FITTINGS FOR THE LINE

II.5. GENERAL LAYOUT DATA OF THE COMPLETE LINE

Capacity (processed tomatoes)	t/24h	150	
Product capacity			
28-30 °Brix	kg/h	1 000	
Steam consumption	kg/h	4 000	
Tap water consumption	m ³ /h	10	
Sealing water consumption	m ³ /h	0.7	
Electrical consumption	kW/h	147	
Water consumption			
t = 18 °C	m ³ /h	78	
t = 28 °C	m ³ /h	195	
Air consumption at P= 4 bar	nm ³ /h	7	
Mounting area	m		6x40x6m
(in the area of the evaporating installation the height must be 13 m)			

III. CLEANING STATION- CIP

CIP-TANK: In stainless steel, pickled. Equipped with supports, cover and the necessary connecting - pieces.

PIPING/FITTINGS/VALVES: For the connections between tank, pump and valves. Equipped with unions and the

necessary hand valves. All metal parts in contact with the liquids are made of stainless steel.

CENTRIFUGAL PUMP: Complete with mounted, closed AC-motor.

Metal parts in contact with the product are made of stainless steel.

Pump capacity up to 20 000 l/h

Power 4 kW