WINE APPLICATION

POLATGROUP

POLAT®

POLAT GROUP OVERVIEW

GLOBAL PRESENCE

55 Production sites and service/sales companies worldwide

HEADQUARTES

AYDIN, TURKEY

EMPLOYEES

718 (as November,2016)
50 Engineers

POLAT GROUP %100 FAMILY OWNED

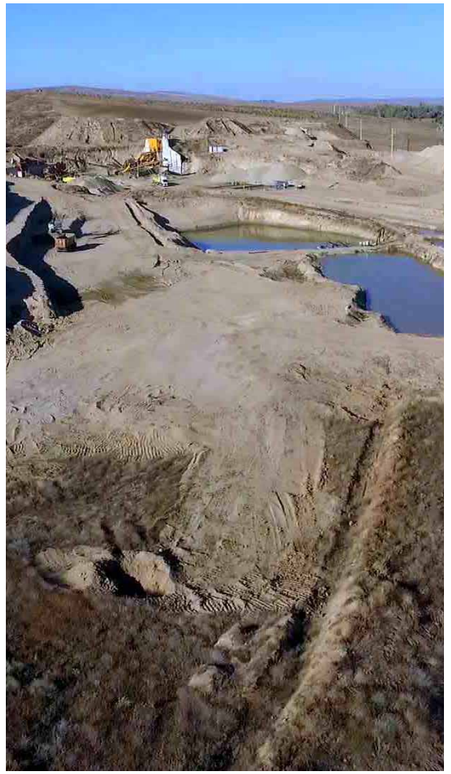
POLAT

POLAT GROUP APPLICATION

OLIVE OIL TECHNOLOGIES

DAIRY PROCESSING TECHNOLOGIES

BEVERAGES TECHNOLOGIES



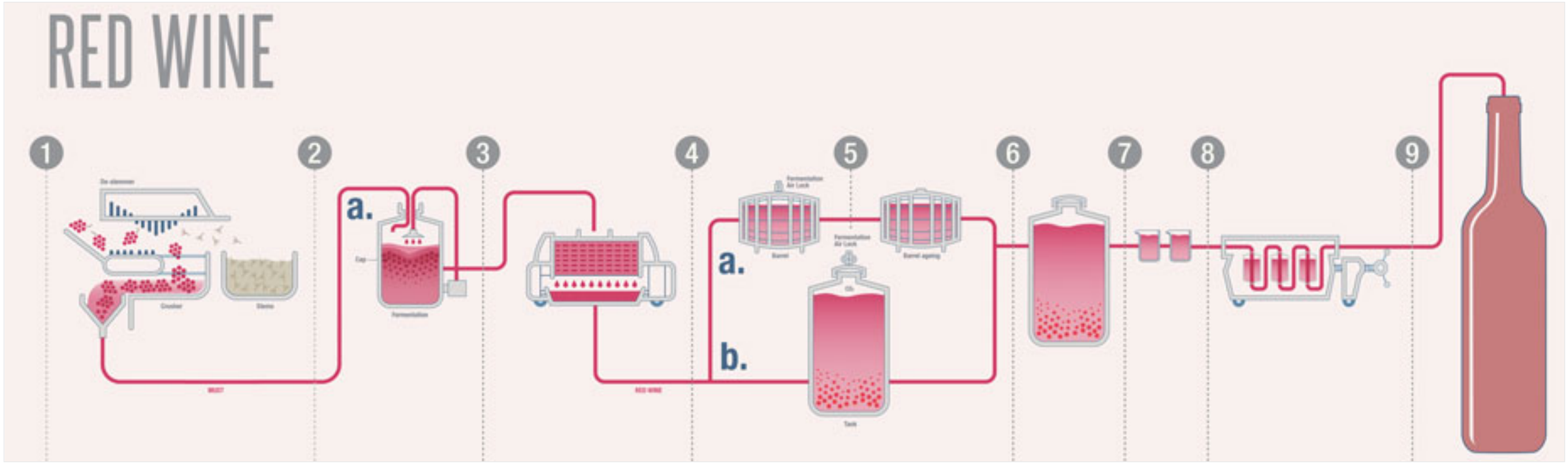
DEWATERING TECHNOLOGIES

INDUSTRIAL SOLUTIONS

POLAT

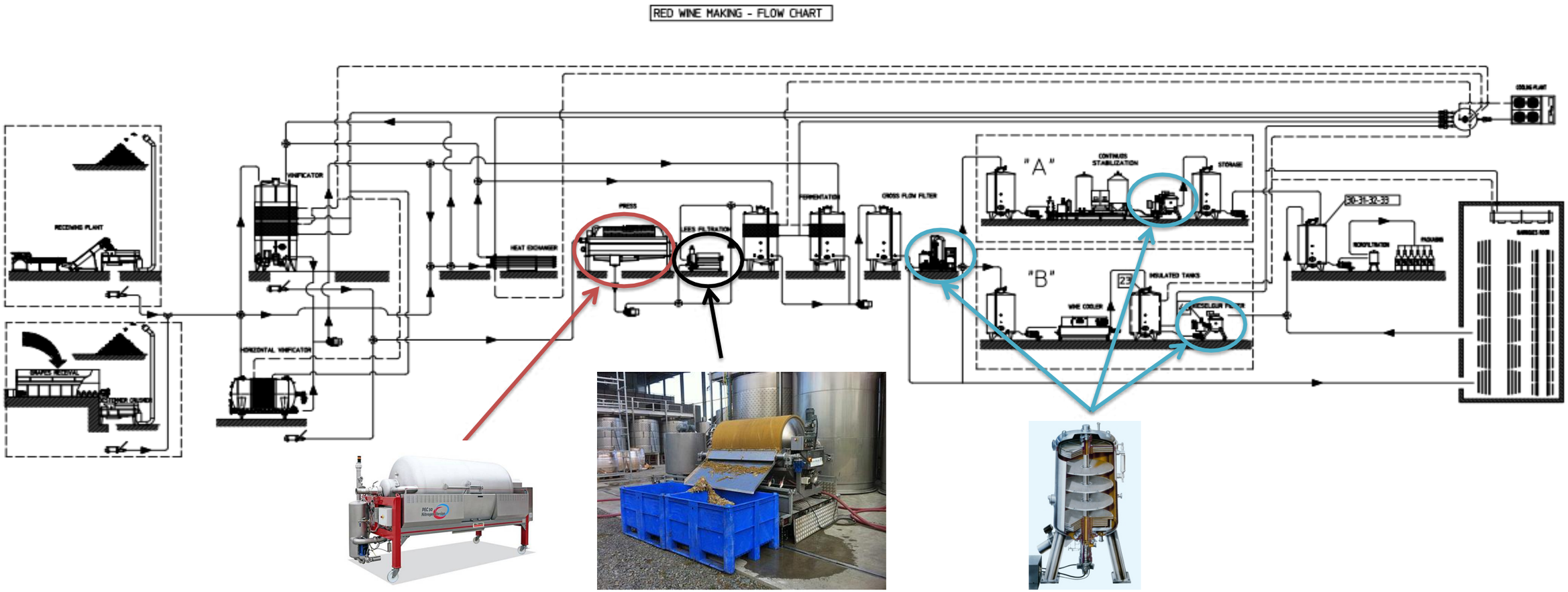
Equipments For Wine Separation

Process Flow Diagram Red Wine



1. DE-STEMMING & CRUSHING	2. PRIMARY ALCOHOLIC FERMENTATION	3. PRESSING	4. MALOLACTIC FERMENTATION	5. AGEING	6. FINING & CLARIFICATION	7. BLENDING	8. FILTRATION	9.BOTTLING

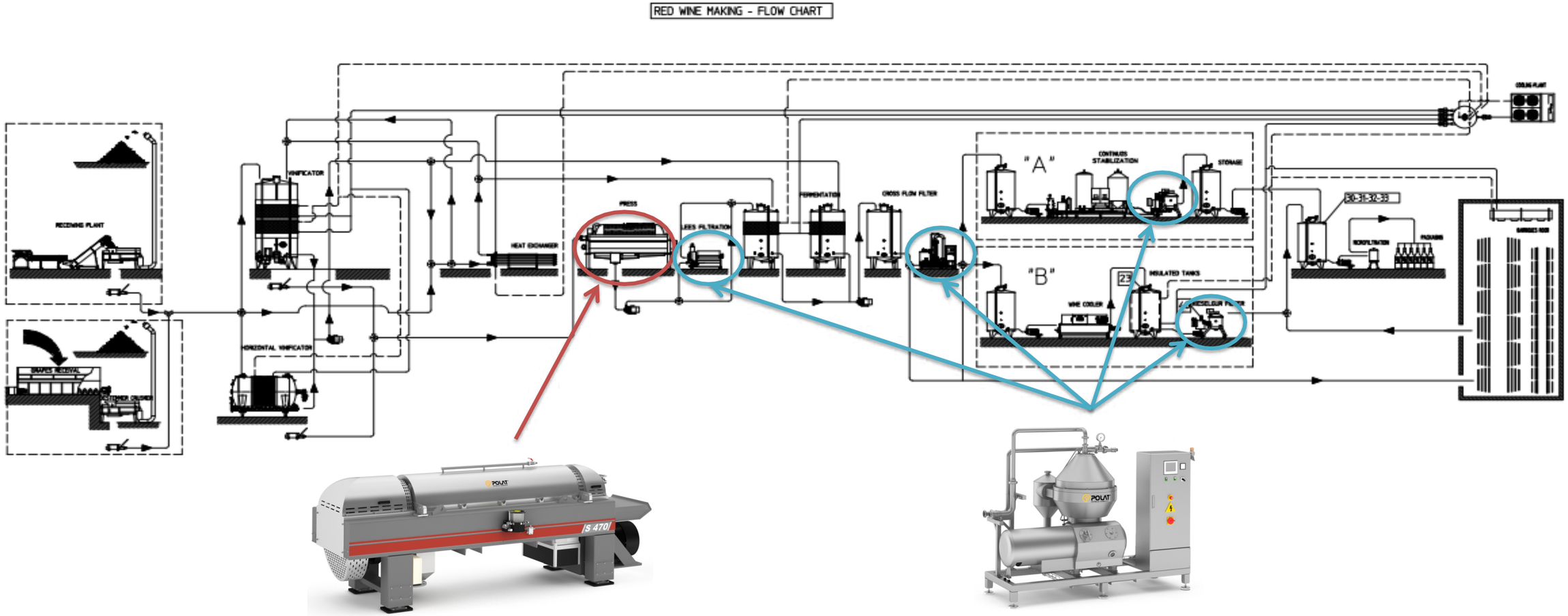
Red Wine Classical Methods



Red Wine, Classical Process Description

- Red wine is a results of red grapes fermented juice.
- The red grapes have to be harvested and destemmed/crushed.
- The berries are stored into a fermentation tanks till the fermentation is finished. In this phase the must became wine and the skins are giving flavors and color.
- After fermentation the solids (skins, seeds, etc) are separated from the wine with classical pneumatic presses (discontinuous process, risk of oxidation pressure is squeezing the seeds extracting tannins).
- Once the young wine is stored it is clarified by aids and consequently by kieselgur filters (kieselgour is needed, filtering pressure is stressing the wine).
- After clarifying processes the wine is ready for bottling.

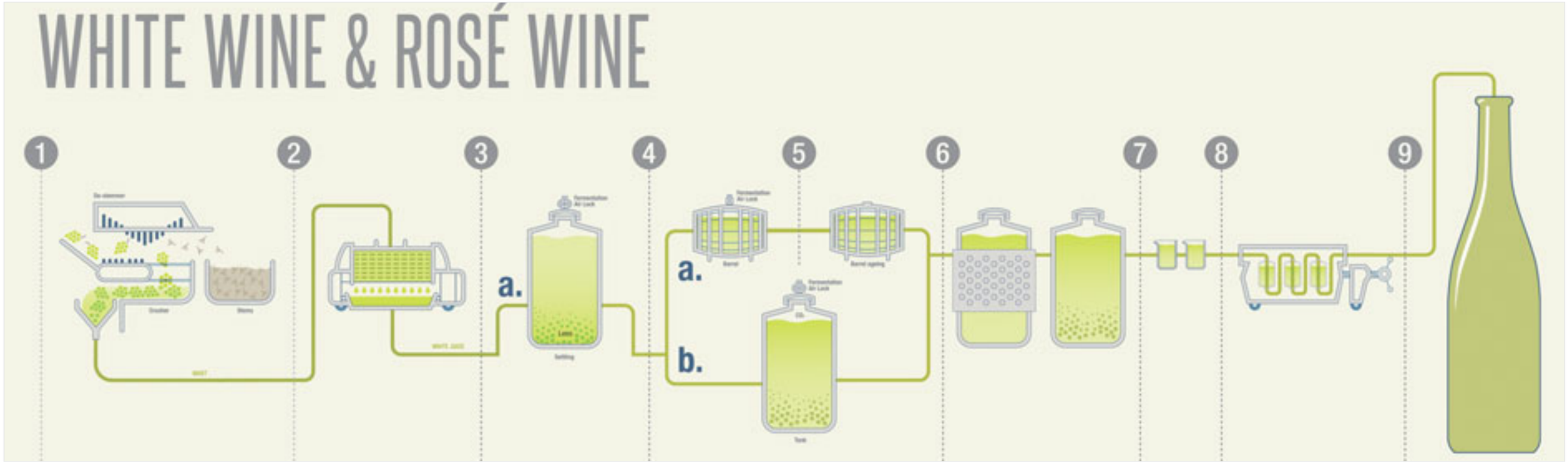
Red Wine POLAT equipments



Red Wine, POLAT Process Description

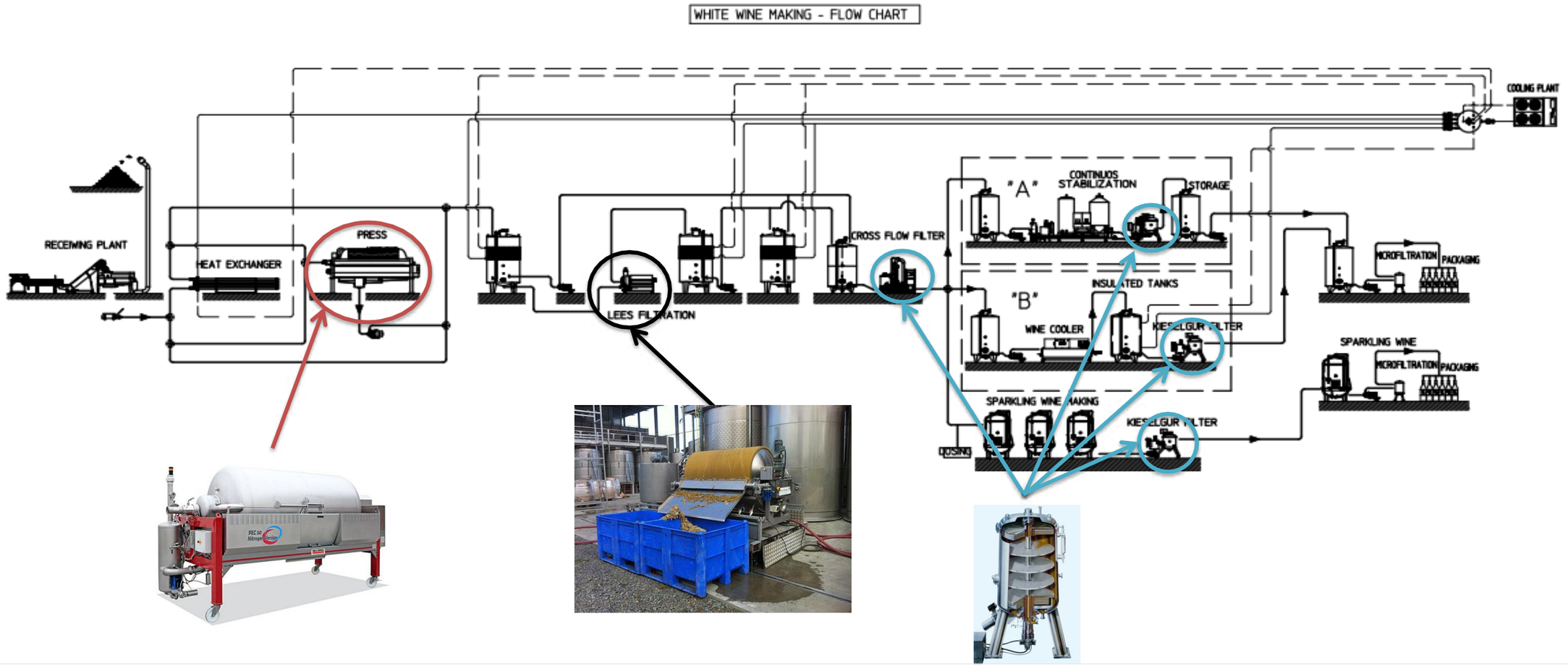
- Red wine is a results of red grapes fermented juice.
- The red grapes have to be harvested and destemmed/crushed.
- The berries are stored into a fermentation tanks till the fermentation is finished. In this phase the must became wine and the skins are giving flavors and color.
- After fermentation the solids (skins, seeds, etc) are separated from the wine with decanter (continuous process, no oxidation).
- Once the young wine is stored it is clarified by aids and consequently by separators (continuous process, no oxidation, kieselgour is not needed, no pressure stress).
- After clarifying processes the wine is ready for bottling.

Process flow diagram White & Rose wine



1. DE-STEMMING & CRUSHING	2. PRESSING	3. JUICE CLARIFICATION	4. PRIMARY ALCOHOLIC FERMENTATION	5. AGEING	6. FINING & CLARIFICATION	7. BLENDING	8. FILTRATION	9.BOTTLING

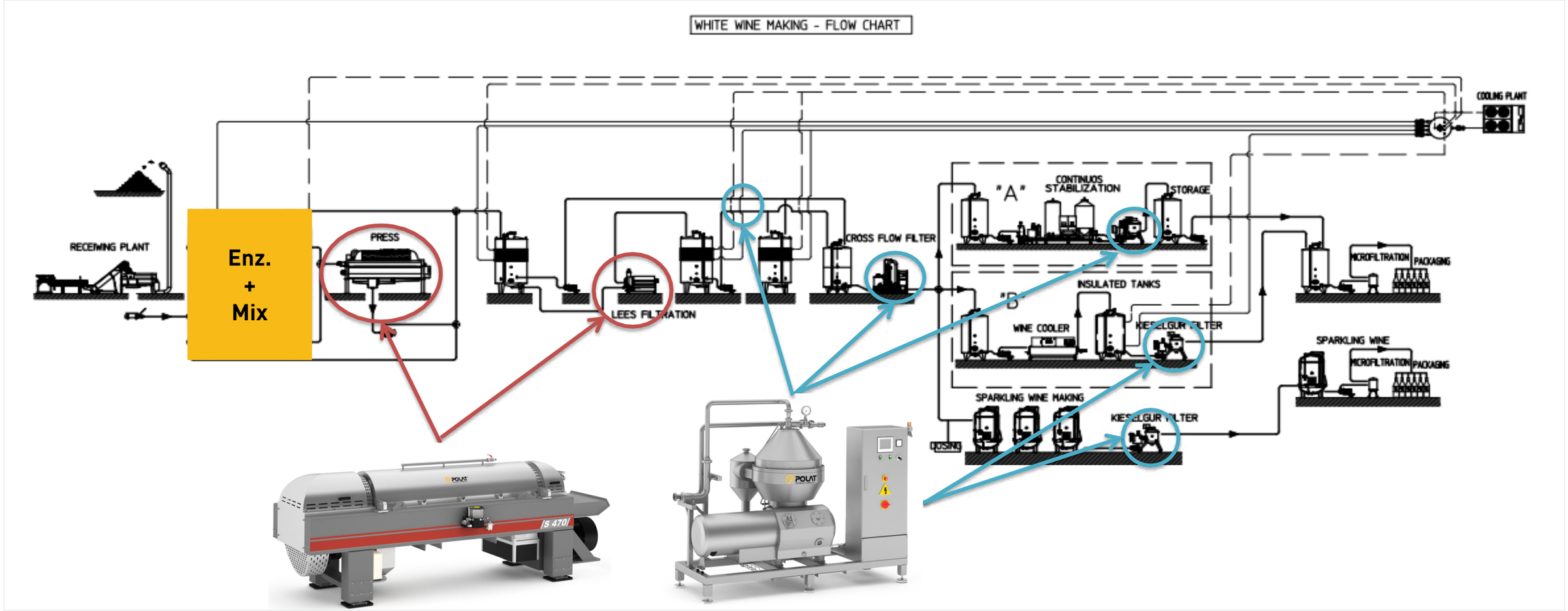
White wine classical methods



White Wine, Classical Process Description

- White wine is a results of white grapes fermented juice.
- The white grapes have to be harvested and destemmed/crushed.
- The berries are separated from the must with classical pneumatic presses (discontinuous process, risk of oxidation, pressure is squeezing the seeds extracting tannins).
- Must is clarified trough aids and vacuum filter (discontinuous process, risk of oxidation, kieselgour is needed, filtering pressure is stressing the wine).
- Once the young wine is stored it is clarified by aids and consequently by kieselgur filters (kieselgour is needed, filtering pressure is stressing the wine).
- After clarifying processes the wine is ready for bottling.

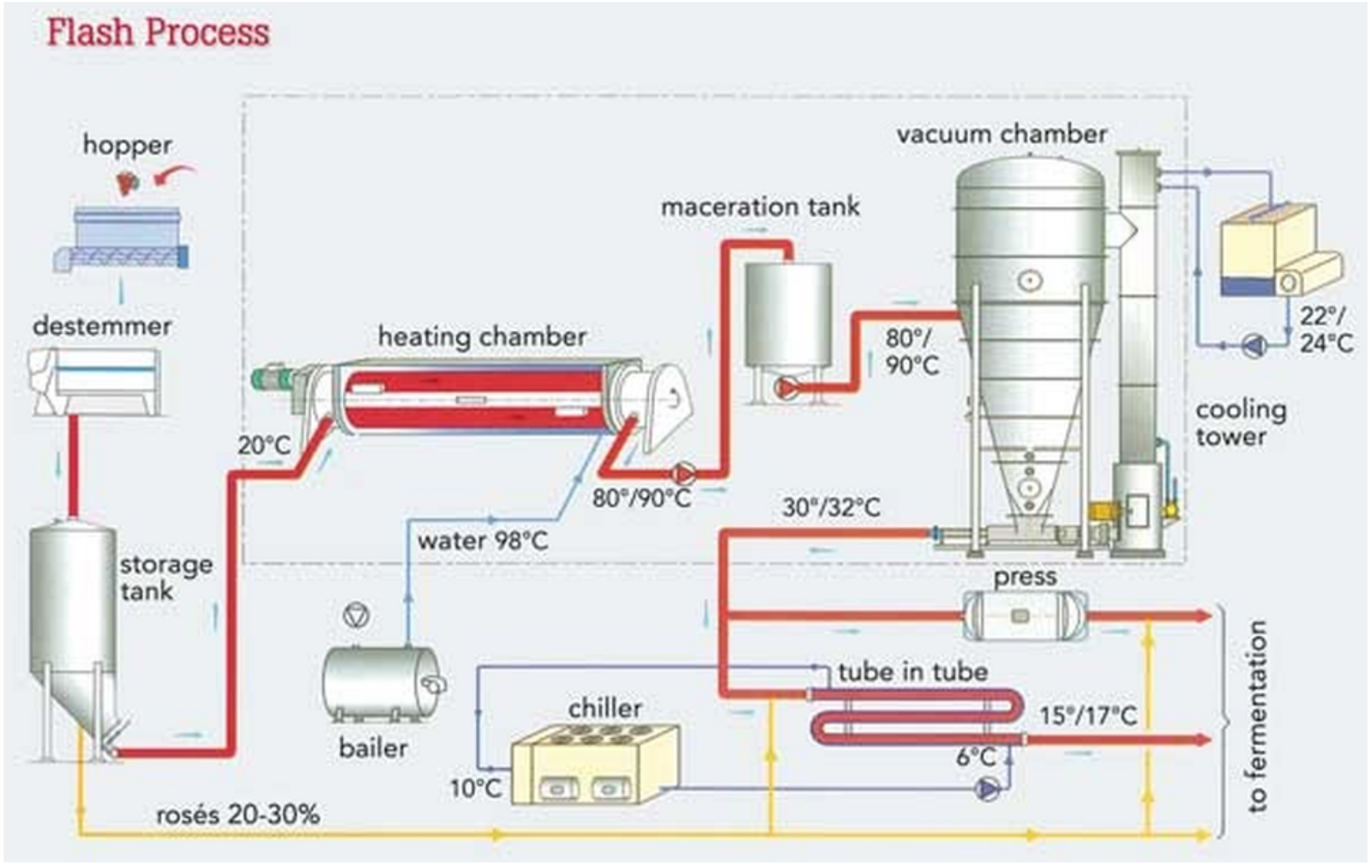
White Wine POLAT Equipments



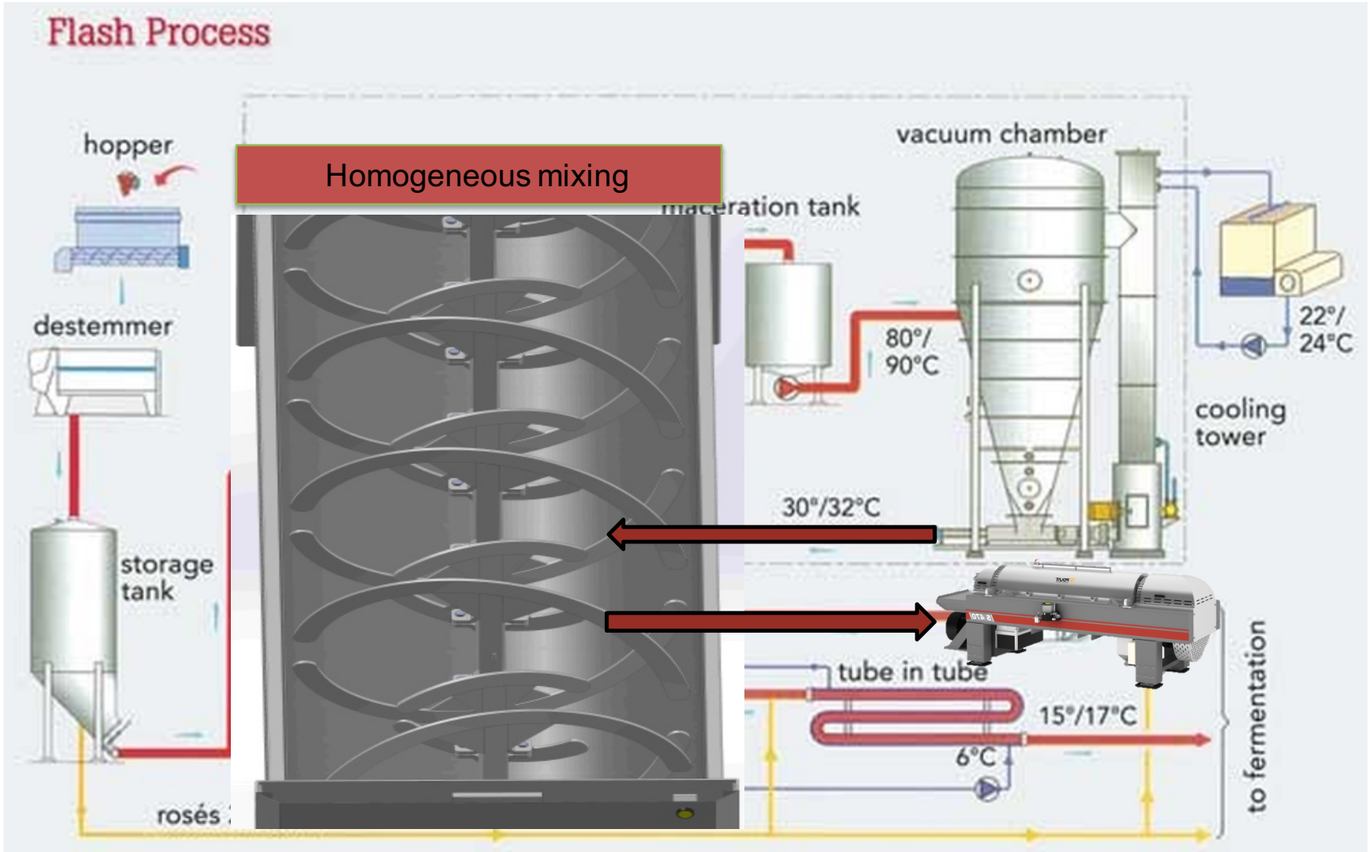
White Wine POLAT Process Description

- White wine is a results of white grapes fermented juice.
- The white grapes have to be harvested and destemmed/crushed.
- The berries are separated from the must with decanter (continuous process, no oxidation).
- Must is clarified trough aids and separator (continuous process, no oxidation, kieselgour is not needed, no pressure stress).
- Once the young wine is stored it is clarified by aids and consequently by separator (continuous process, no oxidation, kieselgour is not needed, no pressure stress).
- After clarifying processes the wine is ready for bottling.

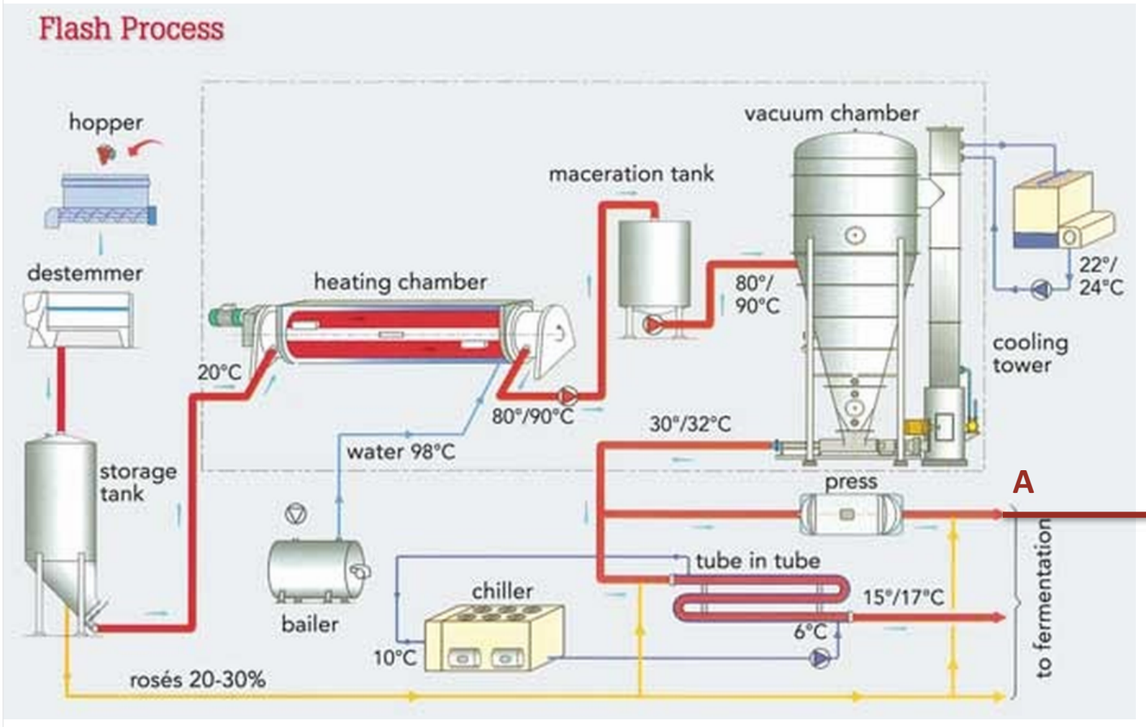
RED and WHITE Grape thermo-vinification
Typical flow diagrams

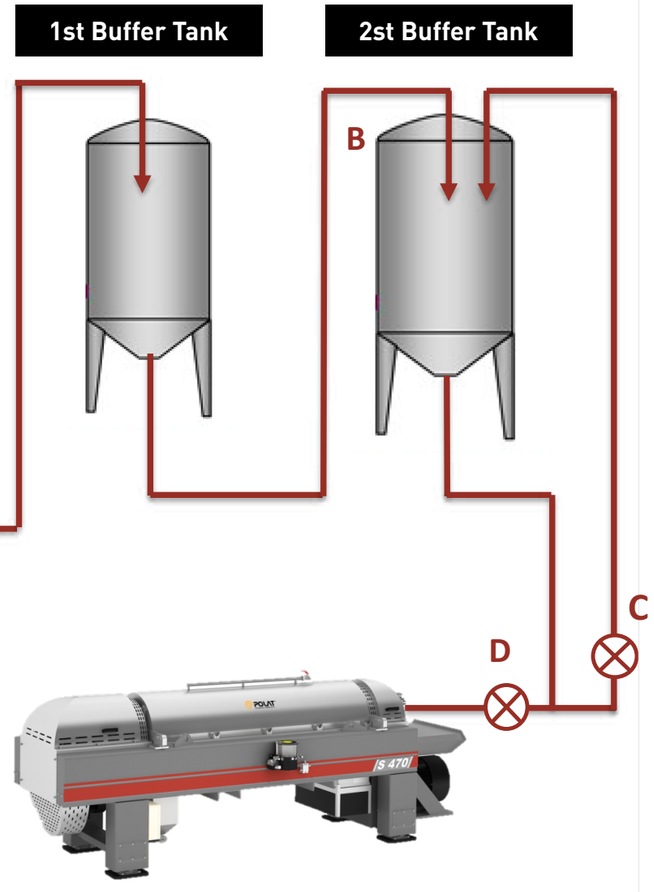


RED and WHITE Grape thermo-vinification
POLAT flow diagrams



RED and WHITE Grape thermo-vinification POLAT flow diagrams





A- feeding the first buffer tank with the thermo-treated product,always mixed with internal blades.

B- filling the 2nd buffer tank from the bottom of the firt. 2nd buffertank has to be filled with max 5-10 ton and has to be always mixed by internal blades

C- recycling process increase the homogenisation and adjust the decanter feeding flow. Provide the decanter feeding pipe with a TEE and two valves in order to adjust the feeding flow and the recycling flow.

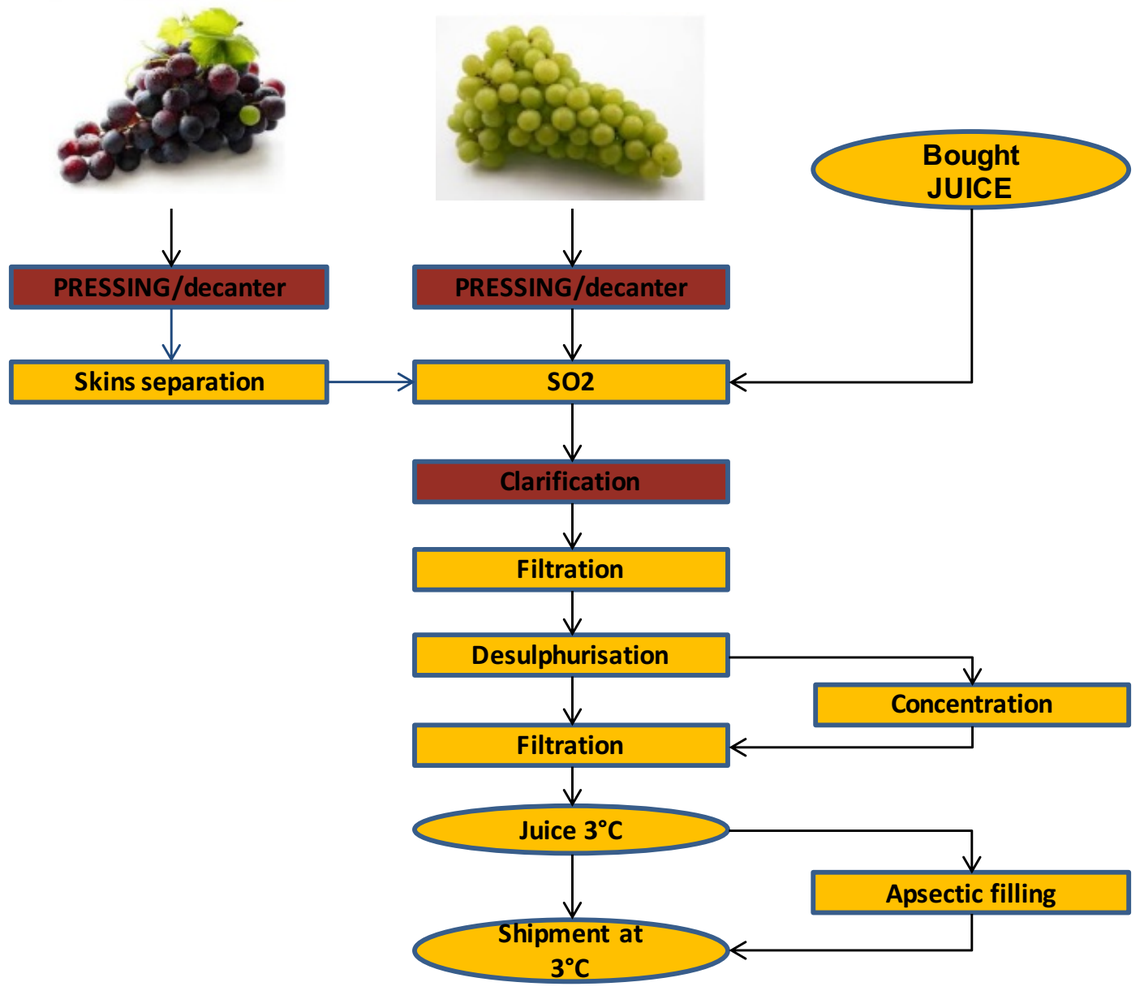
D- decanter feeding capacity has to be controlled by a flowmeter and by a valve.

RED and WHITE Grape thermo-vinification
POLAT decanter advantages

- Online process, the product pass rapidly from the receiving plant to the fermentation tank.
- The decanter assure homogenised and continuous process, avoiding waiting steps.
- Selected must clearness adjustable trough the pipette, solid reduction from 25% to less then 2%.
- Working temperature till 85°C
- The customer needs only to feed the decanter with:

    1. Buffer tank with mixer or Homogeneous and big solids free inlet product.
    2. Continuous feeding as long as possible.

Red and White Grape Juice Flow Diagrams

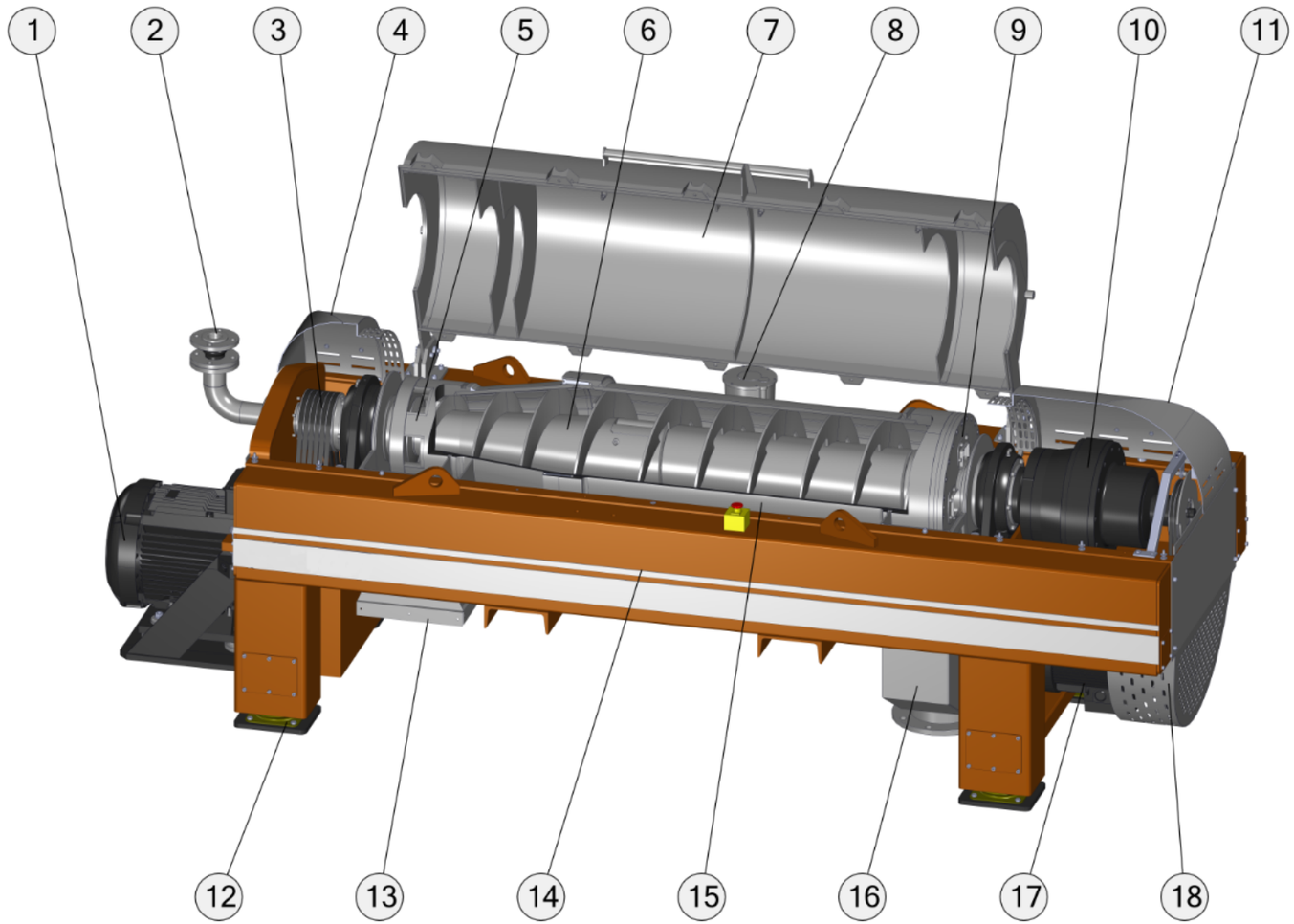


Advantages, POLAT process description

- High influence on quality
- Production of clean, characteristic wines
- No impairment of taste
- Higher yield
- More uniform fermentation process
- Better wine clarification
- Fewer lees after fermentation
- Substantial extension of filter life and ifluence significant savings of filter aid (layers and kieselguhr)
- Savings in working time
- Significantly reduced SO 2 requirements
- Timely separation of the fining lees (shortening of the fining time)
- Lower space requirement (storage capacity)
- Fast production of ready-to-sell wines
- Easy cleaning by CIP (CIP = cleaning-in-place)

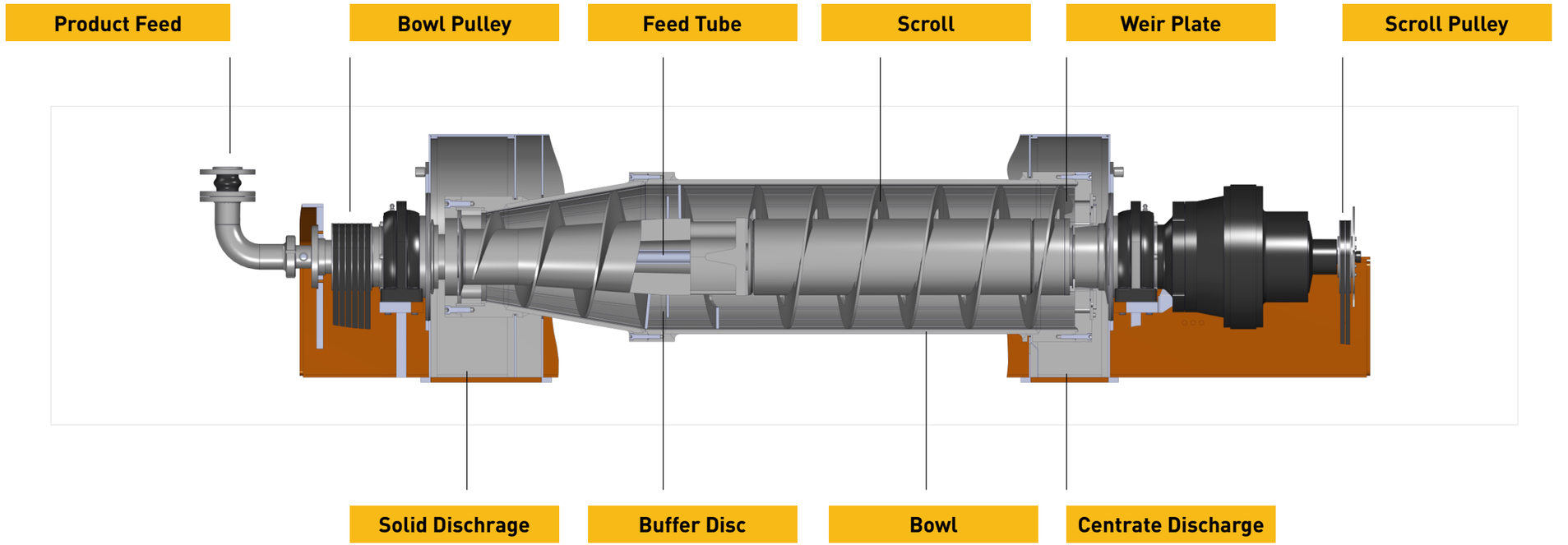
- Enhancement of quality by fast removal of solids immediately after pressing (short contact time).
- Undesirable solids, such as insecticides, de-acidizing sediment and other do not reach the fermentation stage
- Production of clear quality wines
- Efficient pre-clarification permits controlled fermentation with pure yeast.
- Compared with natural tank sedimentation savings in tank space, labour and time. In warm climates savings in cooling capacity due to the immediate removal of solids.
- Continuous processing
- Very low product losses
- Less SO 2 requirement
- Oxygen transferring enzymes are removed with solids
- Less fining agents required in the wine
- Uniform fermentation. This enhances the development of the wine (in warm climates saving in cooling capacity).
- Reduced and healthier yeast deposits
- Processing free of air
- Easy cleaning by CIP (CIP = cleaning-in-place)

DECANTER PARTS



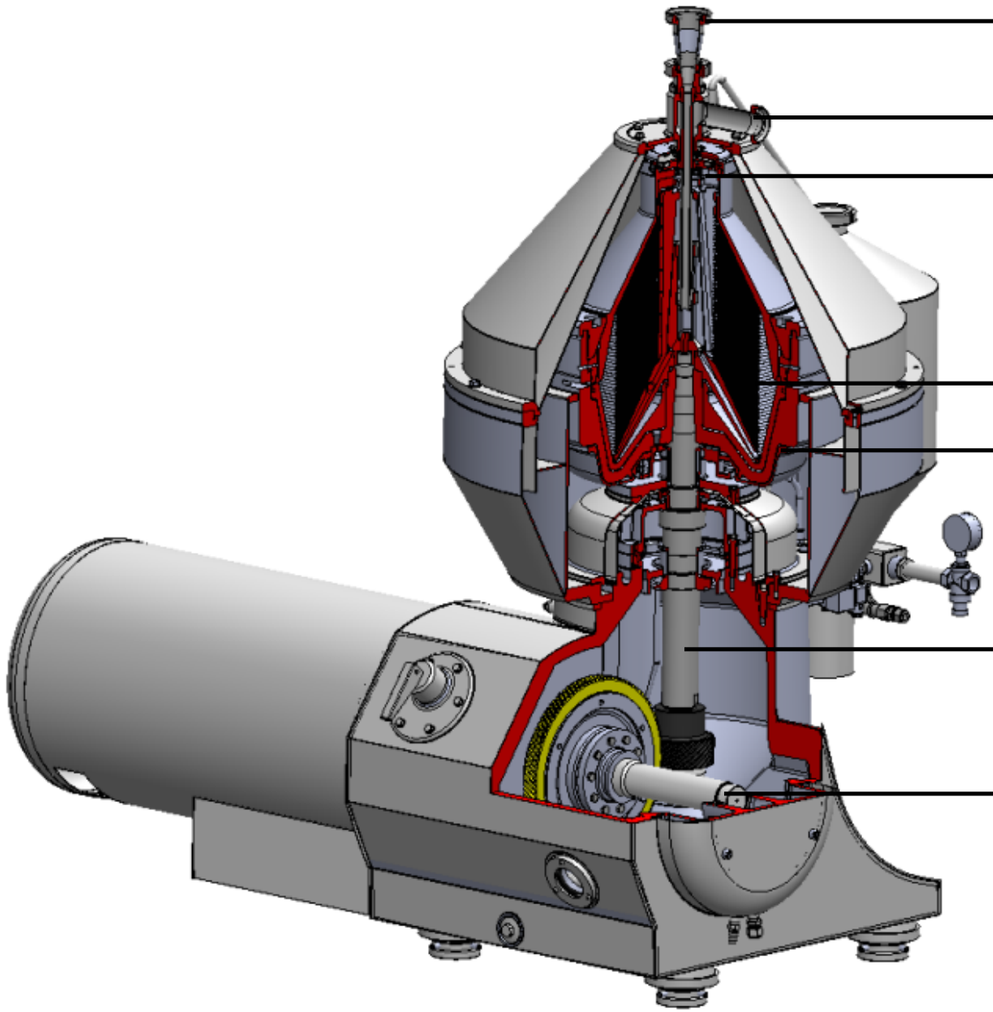
1-Main Motor
2-Feed Pipe
3-Main Drive Belts
4-Pulley Cover
5-Solid Outlet Ports
6-Scroll
7-Upper Casing
8-Lubrication Pump
9-Weir Plate
10-Gearbox
11- Gearbox Cover
12-Vibration Isolator
13-Solid Discharge
14 -Frame
15-Bowl
16-Centrate Discharge
17-Second Motor
18-Pulley Cover

DECANTER SECTION VIEW

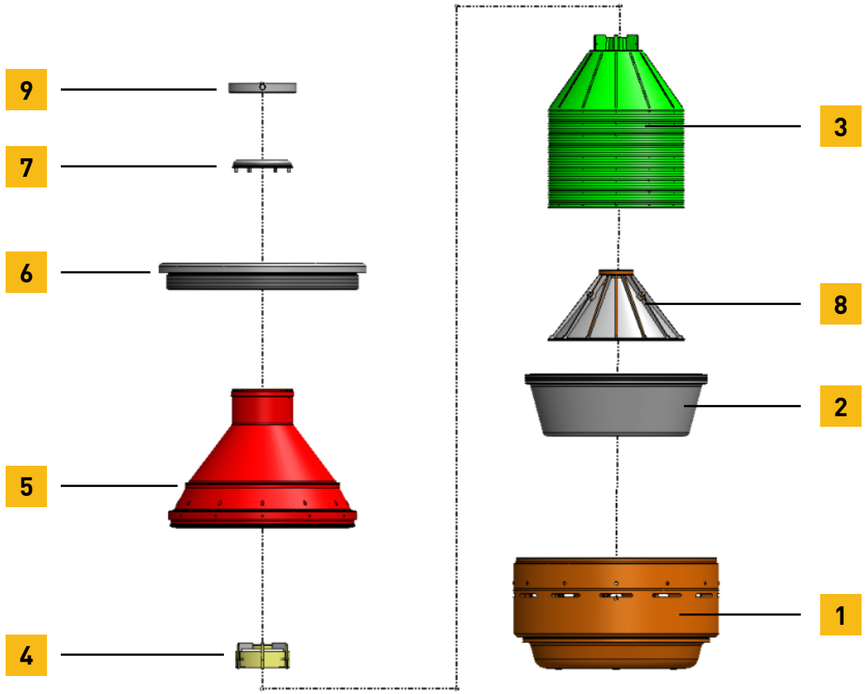


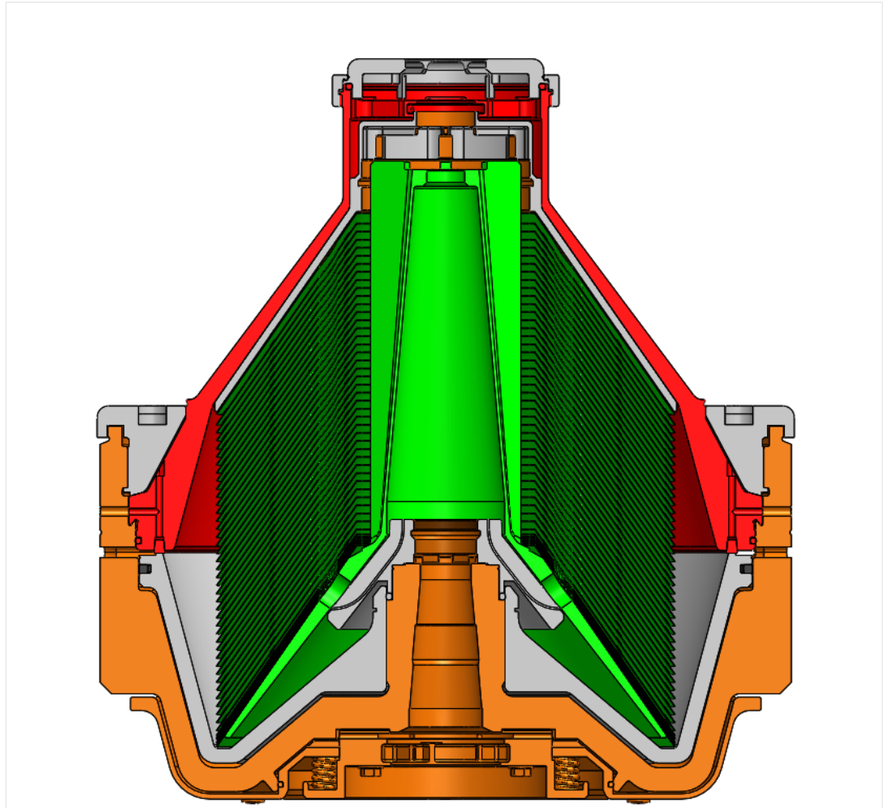
- Conical – Straight Bowl: Centrifugal Casting (AISI 316 / DIN 1.4470 Duplex)
- Scroll Body: Centrifugal Casting(AISI 304 / AISI 316 / DIN 1.4470 Duplex)
- Scroll Flights: AISI 304 / AISI 316 / DIN 1.4462 Duplex
- All the other wet parts: AISI 304 / AISI 316

SEPARATOR PARTS



SEPARATOR BOWL PARTS





No	Descirption	Material
1	Bowl Body	Duplex SS
2	Sliding Bowl	Duplex SS
3	Distributor	AISI 316
4	Inner Flange	AISI 316
5	Bowl Hood	Duplex SS
6	Lock Ring	Duplex SS
7	Top Flange	AISI 316
8	Distributor Cone	AISI 316
9	Distributor Cone	AISI 316

PRESSING		
	Decanter	
S 350	up to 7.000	lt/h
S 430	up to 9.000	lt/h
S 470	up to 12.000	lt/h
S 530	up to 15.000	lt/h
S 570	up to 18.000	lt/h
S 670	up to 25.000	lt/h
S 770	up to 35.000	lt/h

MUST CLARIFICATION AFTER STATIC PRESS		
	Decanter	
S 350	up to 10.000	lt/h
S 430	up to 12.000	lt/h
S 470	up to 15.000	lt/h
S 530	up to 18.000	lt/h
S 570	up to 25.000	lt/h
S 670	up to 35.000	lt/h
S 770	up to 45.000	lt/h

BOTTOM TANK PROCESS		
	Decanter	
S 470	up to 5.000	lt/h
S 530	up to 6.000	lt/h
S 570	up to 8.000	lt/h
S 670	up to 12.000	lt/h
S 770	up to 15.000	lt/h

WINE CLARIFICATION		
	Clarifier	
TX 3-B	up to 5.000	lt/h
TX 4-B	up to 10.000	lt/h
TX 5-B	up to 15.000	lt/h
TX 5-LB	up to 20.000	lt/h
TX 6-B	up to 25.000	lt/h
TX 6-LB	up to 30.000	lt/h

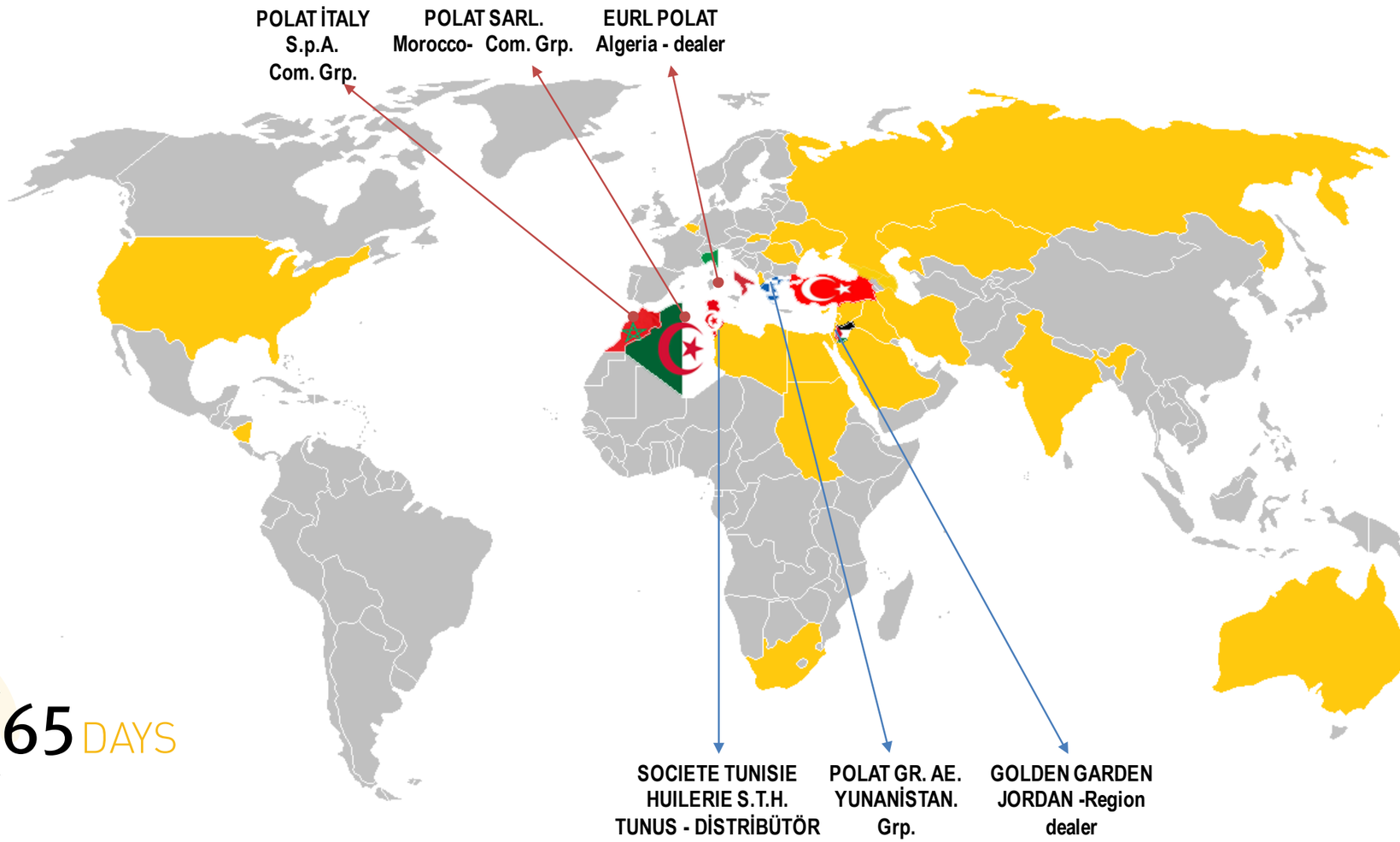
More Than 8000

Different Types Of Parts In Our Warehouse

4000

Pieces Minor & Major Spare Parts Ready To Deliver

POLAT MAKINA WORLDWIDE



Machines and Plants installed
More than **2000**

24 7 365 DAYS

50 Technical Staff (pre&and after Sale)

POLAT

teşekkürler.
thank you.
gracias.

POLATGROUP