TARTRATE STABILISATION

DELLA TOFFOLA
PACIFIC

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Tartrate Stabilisation Technology

- **Its importance**
- **Why the interest**

1) ***Process Efficiency / on demand technology***
2) ***Environmental /Costs***

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Technology to suit the industry

-High payback /NO variable cost input

-Super premium / Medium scale production

-Technology flexible for multi purposes

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REDUCTION IN kW CONSUMPTION by up to 70%

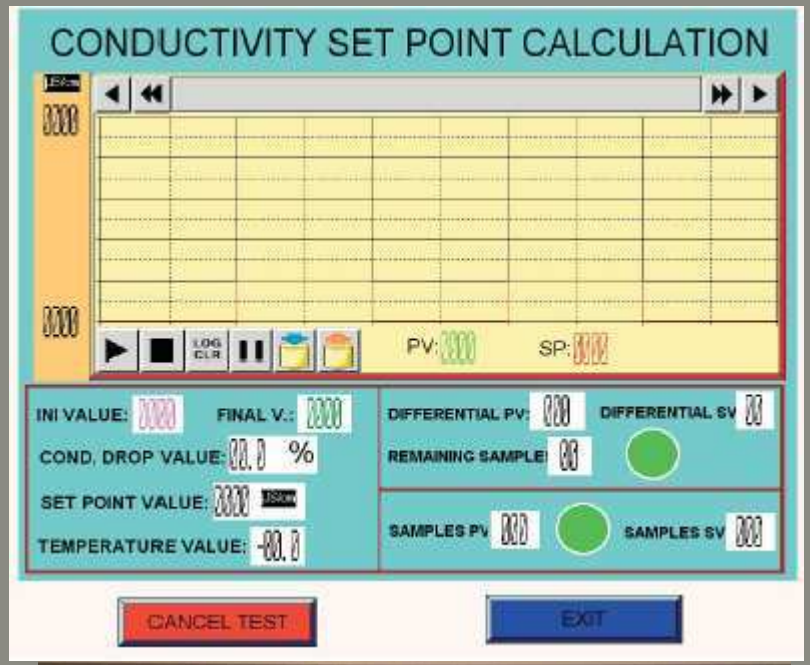
- Della Toffola Polarsystem is supplied complete with own refrigeration.
- The efficiency of this gas based system is able to bring down wines very quickly *(+16°C to -5°C within 4 hours).* It also delivers wine out of system warmed and bottle ready
- It also frees up winery fridge plant capacity for other work

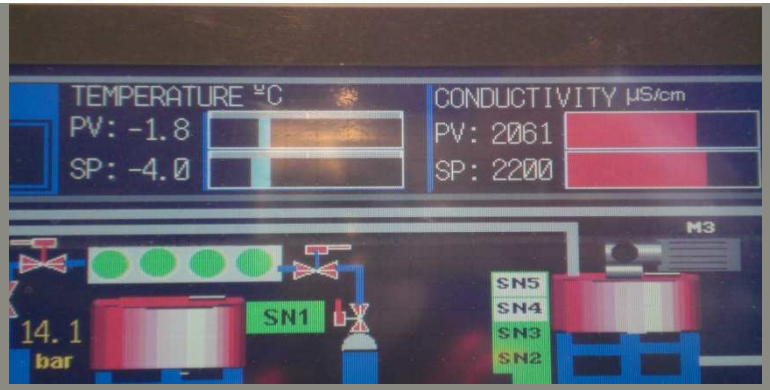
MAXIMUM KW RECOVERY

Heat exchanger on the inlet effects first stage of decreasing temperature of wine for stabilisation. It also delivers exit wine back to finished tank warmed & bottle ready. Inlet and outlet wines are matched (±1°C) once machine is in stabilising mode with little – no power draw.

WINE ANALYSIS – ON BOARD

The Polarsystem can in fact deliver a higher quality & better consistency of wine as it utilises a defined & controlled end point.



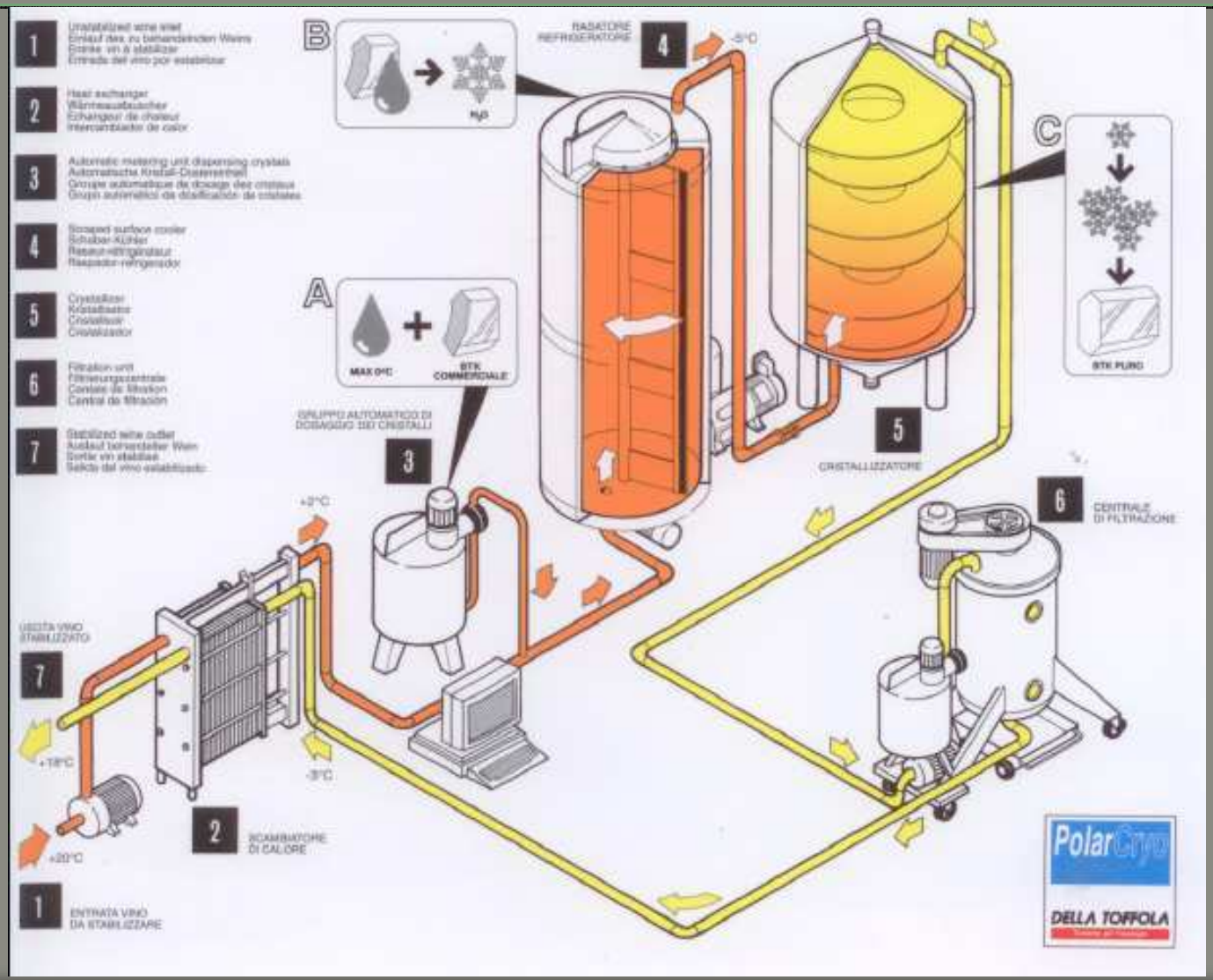


REDUCED WINE LOSSES

Reduced wine Losses – Traditional process locks up a % of wine in lees.

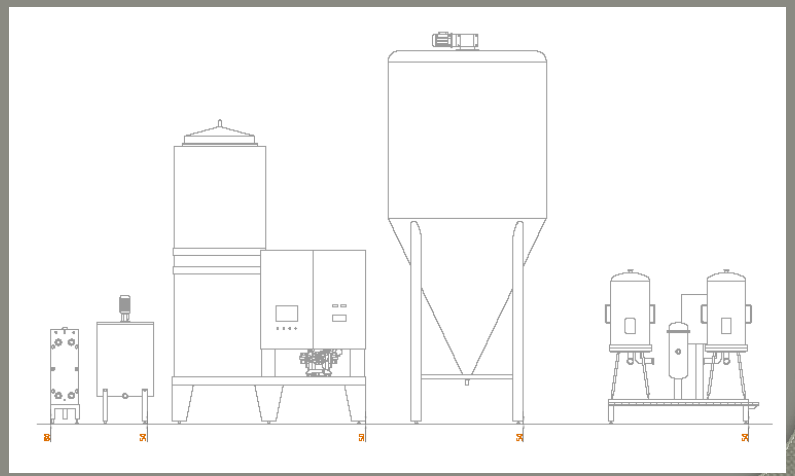
Could rack off after 12 hours settling to bring tartrate volume to less than 0.1% losses from batch. This material can then be added to seed upcoming batches – from white only

CLOSED LOOP
= MININUM DO PICK UP

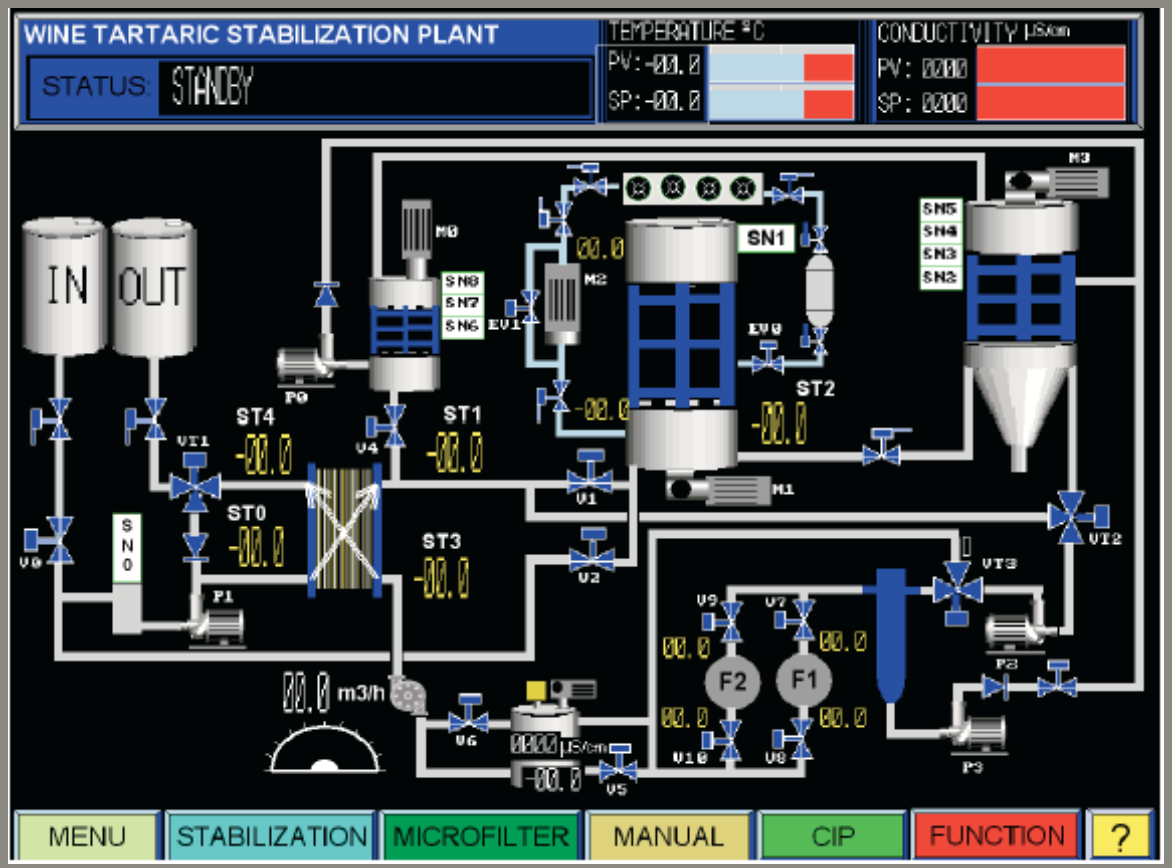


Operational Savings

- Fewer wine movements – reduces work in cellar
- Stabilisation contained in single location – footprint for stabilisation significantly reduced
- Little – No requirement for Cream of Tartar.
  Volumes that might be required could be generated by site.
  = Consumables savings
- Single operator can manage system = Labour savings
- Washing requirement after stabilising - Greatly automated & contained in single area



Automation – PLC Programming



Touch Screen PLC – front screen gives a quick glimpse of the process….

-Displaying temperatures at 5 monitored points

-Pressure through system

-Flow rate

-Temperature set point as well as actual

-Conductivity set point and actual

-Mode of operation

-Filter Pressures

Hydrocyclone & Microfilters or Earth Filter

Tasting Point / Sample Tap

The wines through phases of Polarsystem Stabilisation

Data from Trials conducted in NZ (based on < 100KL batches with P100 System)

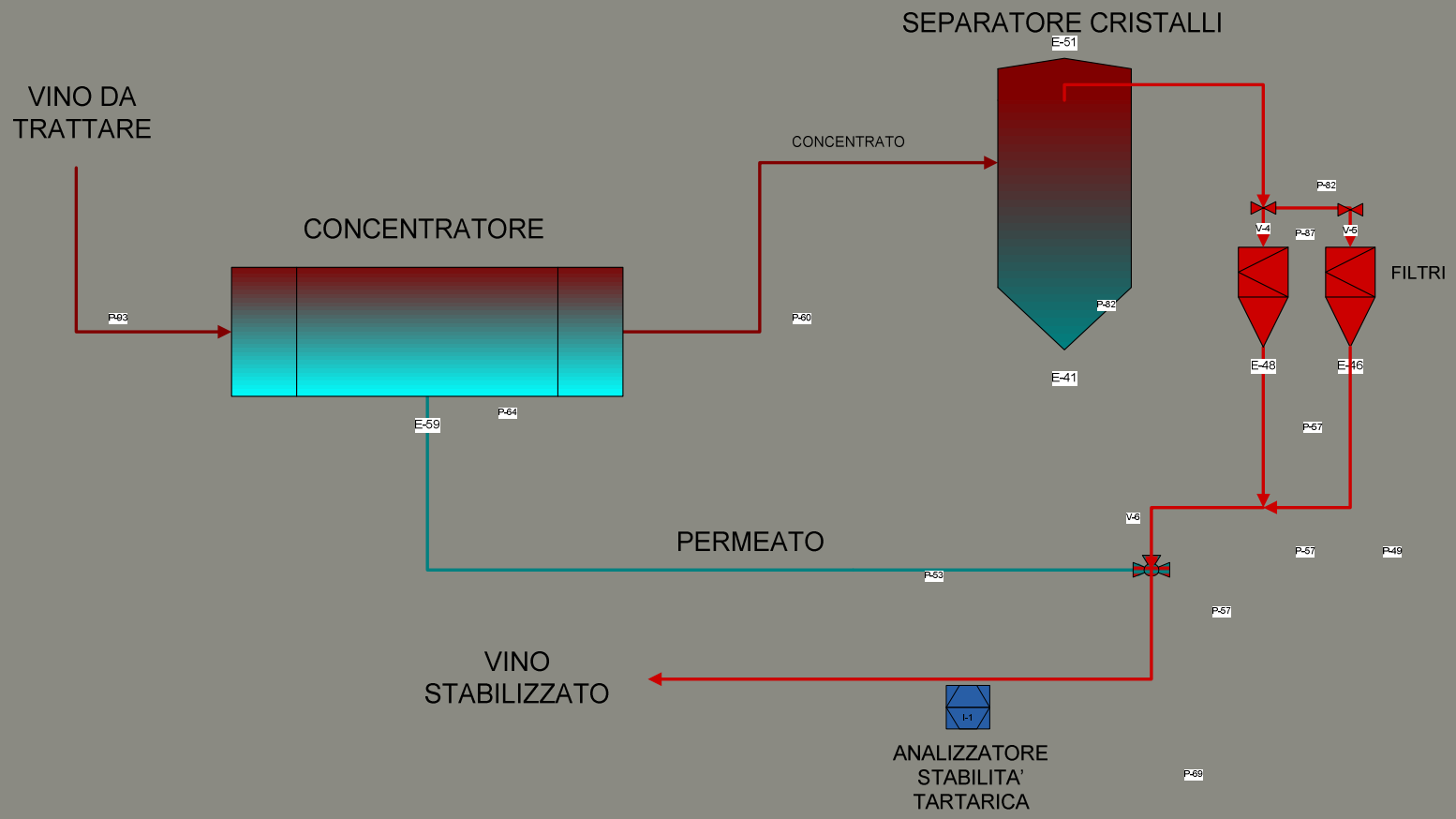
TOTAL Specific ENERGY
4.35kW/Hr/KL

Optimised 3.45kW/Hr/KL

DT SEPRATECH

DT SEPRATECH

SCHEMA DT STABILISATION



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