

Efficient and Cost-effective Clarification in the Wine Industry

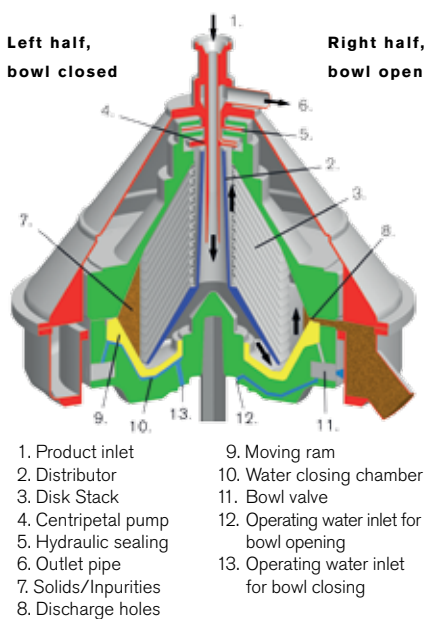


Efficient and cost-effective clarification of wine

Current and evolving customer needs always come first at SPX. Through a close collaboration with our customers, an innovative approach and cutting-edge R&D we design, develop and deliver best-in-class separation solutions for the wine industry that provide superior quality and efficiency at the lowest possible cost.

Grape juice clarification

In juice processing the real capacity of the clarifier mainly depends on the separable solids content in the juice, the requested clarification degree, and the maximum solids discharging capacity of the clarifier. The separable solids are evaluated by a lab centrifuge.



JUICE CLARIFIERS

MODELS	HYDRAULIC CAPACITY l/h (Gal/h)	JUICE CAPACITY UP TO* l/h (Gal/h)	MOTOR POWER kW (HP)
SE101EI	2,500 (670)	1,000 (270)	4 (5)
SE 111EI	5,000 (1330)	2,000 (530)	5.5 (7.5)
SE 161EI	9,000 (2380)	2,000 (530)	9.2 (15)
SE 201EI	15,000 (3970)	6,000 (1590)	15 (20)
SE 301EI	25,000 (6610)	11,000 (2910)	22 (30)
SE 401EI	30,000 (7930)	13,000 (3440)	22/30 (30/40)
SE 451EI	35,000 (9250)	13,000 (3440)	30 (40)
SE 501EI	40,000 (10570)	22,000 (5820)	37 (50)
SE 601EI	70,000 (18500)	25,000 (6610)	45/55 (60/75)
SE 701EI	90,000 (23780)	25,000 (6610)	55/75 (75/100)

* Solids content reduction: 3 - 3,5% v/v

Features	Benefits
<ul style="list-style-type: none"> Simple mechanical design and construction, easy to maintain 	<ul style="list-style-type: none"> Less maintenance time and cost
<ul style="list-style-type: none"> Mounted onto a compact pre-assembled skid 	<ul style="list-style-type: none"> Short installation time and cost saving. Easy movement inside winery lay-out
<ul style="list-style-type: none"> Standard motor and low energy consumption 	<ul style="list-style-type: none"> Environmentally friendly and lower cost of ownership
<ul style="list-style-type: none"> Low-noise 	<ul style="list-style-type: none"> Improvement on operator's working conditions
<ul style="list-style-type: none"> Hygienic fluid handling while processing 	<ul style="list-style-type: none"> Low contamination risk
<ul style="list-style-type: none"> Remote monitoring 	<ul style="list-style-type: none"> Operational diagnostics
<ul style="list-style-type: none"> Fast and precise discharge 	<ul style="list-style-type: none"> Low product losses
<ul style="list-style-type: none"> Automation and customization 	<ul style="list-style-type: none"> Effective process control
<ul style="list-style-type: none"> Hermetic design by mechanical seals 	<ul style="list-style-type: none"> No oxygen pick-up or CO₂ losses

Wine clarification after fermentation

A wine is considered clear when there are no visible particles suspended in the liquid and, especially in the case of white wines, when there is a degree of transparency. A wine with too much suspended matter will appear cloudy and dull, even if its aroma and flavour are unaffected. Most wines are therefore clarified after fermentation. Clarification removes insoluble matter suspended in the wine. This matter can include dead yeast cells, bacteria, grape residue and various other compounds. Centrifugation is a quick and effective method of separating insoluble matter without impacting the quality of the wine.

Gentle and efficient clarification

SPX Seital series clarifiers are equipped with a special soft inlet feeding system for gentle product handling in order to minimize turbulence and product damage. A special hydraulic sealing feature also minimizes oxygen pick up. This makes Seital series clarifiers an excellent solution in the wine industry by helping processors achieve high levels of clarification and maintain the desired characteristics and properties of wine without product damage. SPX Seital series clarifiers offer extremely high separation efficiencies due to their high centrifugal force and large separation capacities.

Process

SPX Seital series clarifiers are used to remove and/or drastically reduce the content of solids and yeast.

In cases in which CO₂ losses must be absolutely avoided, the SPX Seital "H" hermetic clarifier with mechanical seals, should be used for greater clarifier separation efficiency.

White wines

Experience using an SPX Seital series clarifier in addition to an intermediate filter on some white wines has produced extremely high clarification levels similar to the results seen in a cross-flow filter process.

Sparkling wines

Clarification of sparkling wines must be performed using an SPX Seital "H" hermetic clarifier, with mechanical seals.

Other wines

Excellent clarification results for all other wines can be achieved using an SPX Seital centrifugal clarifier for pre-clarification followed by a final filter for very fine clarification.

WINE CLARIFIERS

MODELS	HYDRAULIC CAPACITY l/h (Gal/h)	WINE CAPACITY UP TO** l/h (Gal/h)	MOTOR POWER kW (HP)
SE101EI	2,500 (670)	1,500 (400)	4 (5)
SE111EI	5,000 (1,330)	3,000 (800)	5.5 (7.5)
SE161EI	9,000 (2,380)	7,000 (1,850)	9.2 (15)
SE201EI	15,000 (3,970)	13,000 (3,440)	15 (20)
SE301EI	25,000 (6,610)	20,000 (5,290)	22 (30)
SE401EI	30,000 (7,930)	25,000 (6,610)	22/30 (30/40)
SE451EI	35,000 (9,250)	30,000 (7,930)	30 (40)
SE501EI	40,000 (10,570)	33,000 (8,720)	37 (50)
SE601EI	70,000 (18,500)	40,000 (10,570)	45/55 (60/75)
SE701EI	90,000 (23,780)	55,000 (14,530)	55/75 (75/100)

** The real clarifier capacity depends on the product characteristics and on the requested degree of clarification

Accessories

The following accessories are recommended in order to reduce product loss and enable total control of the clarification process:



- Electro-pneumatic metering device



- Turbidimeter for complete control of the process



- Product recirculation to avoid temporary turbidity after discharges



- "H" hermetic execution



- Feeding pump

Quality engineering and control

- Optimization of structural and dynamic design using advanced design technology
- Optimization of product fluid-dynamic with new vertical disk stack design
- Cutting-edge manufacturing and quality control systems

Service and expertise

Service and support for maximum output

- Maintenance and troubleshooting – avoid costly downtime
- Rapid delivery of original spare parts – reliability for longer service life
- Remote monitoring – fast problem solving

Knowledge partnership to keep you ahead

- Application testing and process optimization – higher revenues at lower cost
- R&D expertise – new product development addressing evolving demand
- Operator training – greater efficiency, minimize human error





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Based in Charlotte, North Carolina, SPX Corporation (NYSE: SPW) is a global Fortune 500 multi-industry manufacturing leader. For more information, please visit www.spx.com

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