

# Efficient and Cost-effective Clarification in the Brewing Industry



# Efficient and cost-effective clarification

Current and evolving customer needs always come first at Seital Separation Technology. Via 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 brewing industry that deliver superior quality and efficiency at the lowest possible cost.

**Benefits**

- Short installation time
- All bowl main parts in DUPLEX and SUPERDUPLEX stainless steel; bowl and solids catcher in ambient stainless steel
- Special disk stack design for enhanced separation and longer processing time
- High reliability and safety
- Effective process control
- Lower maintenance requirement
- Lower investment requirement

## Beer and beer wort clarification

SPX Seital hermetic separators remove residual yeast and other non-soluble solids quickly and efficiently without impacting the flavor and aroma of the beer.

Through extensive testing and numerous installations, SPX offers a wide range of experience and separation technology specifically designed for the needs of the beer processing industry. Optimization of design standards in addition to rugged material construction and strict quality control procedures ensure our customers receive the clarifier that is best suited for their demanding applications.

## Main characteristics of SPX beer clarifiers

### Product quality

- Hermetic separator achieves minimal oxygen pick-up, typically less than 10ppb
- Soft product feeding and discharging

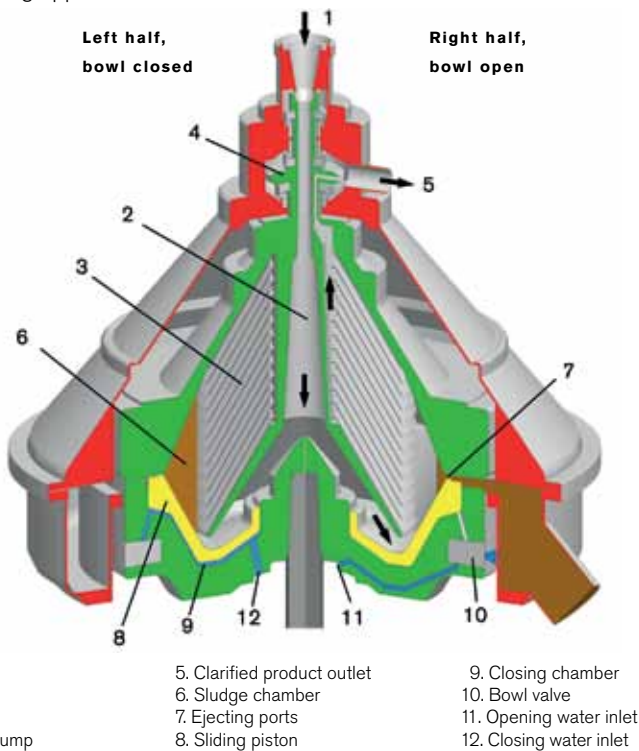
- Product recirculation device to minimize outlet turbidity at clarifier discharge
- Electro-magnetic flow meter for accurate flow measuring and for setting desired batch to be processed

### Efficiency

- High ratio between machine size and equivalent area of separation in order to achieve desired clarification efficiency at the highest flow rates
- Fast and precise discharge minimizes product losses and maximizes solids content at the discharge
- Time-based or turbidity measured automatic solids discharge option available

### Hygiene

- Higher hygienic conditions achieved through use of an additional set of CIP spray nozzles affixed to the cover of the bowl
- Frame covered by stainless steel to assure better cleanability and long-life
- All ambient stainless steel around the bowl to assure efficient cleanability



## Beer Clarifiers

Capacities up to, according to different clarification steps hl/h (Gal/h) (\*)

MODELS	HOT WORT hl/h (Gal/h)	TRUB WORT hl/h (Gal/h)	GREEN BEER hl/h (Gal/h)	BEFORE FILTRATION hl/h (Gal/h)	BEER RECOVERY hl/h (Gal/h)	SPECIAL POLISHING hl/h (Gal/h)
SE101	15 (396)	3 (79)	25 (660)	25 (660)	1 (26)	
SE111	45 (1188)	5 (132)	50 (1320)	50 (1320)	2 (53)	
SE161	50 (1320)	5 (132)	70 (1849)	70 (1849)	2 (53)	20 (528)
SE201	140 (3698)	15 (396)	140 (3698)	140 (3698)	6 (158)	40 (1056)
SE301	200 (5283)	40 (1056)	200 (5283)	200 (5283)	10 (264)	
SE401	250 (6604)	40 (1056)	250 (6604)	250 (6604)	10 (264)	
SE451	290 (7660)	50 (1320)	290 (7660)	290 (7660)	12 (317)	90 (2372)
SE501	330 (8717)	100 (264)	500 (13208)	500 (13208)	25 (660)	
SE601	400 (10566)	120 (3170)	600 (15850)	600 (15850)	30 (792)	110 (2905)
SE701	530 (14001)		750 (19812)	750 (19812)		

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

	INLET	OUTLET
Hot wort	< 1.5% v/v	< 0.05% v/v
Trub wort	< 15% v/v	< 0.2% v/v
Green beer	< 20 million yeast cells/ml	< 1 million yeast cells/ml
Before filtration	< 10 million yeast cells/ml	< 0.5 million yeast cells/ml
Beer recovery (CM <sup>3</sup> )	< 30% v/v	< 1% v/v

### Safety and workplace environment

- Vibration monitoring and fast braking system (pneumatic or electric) for unattended operation
- Low operational noise level created by optimization of aerodynamic bowl design

### 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 – to 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, minimum human error





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#### ABOUT SPX

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](http://www.spx.com)

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