

SPXFLOW

Brew Your Lifestyle

– Helping to create *YOUR* passion



Seital™ Separation Technology



*Whatever
the brew,
whatever
the recipe ...*

*SPX FLOW
has the
process
you need*

Your Passion, Your Beer

**Create, experiment, perfect your passions:
Don't compromise on quality.**

What's your style?

Create the right beer for every occasion.
Let your customers savor the unique
combination of your experience and craft.
Your passion for quality comes from the right
ingredients, a proven process and the
best equipment.

Your beer has a specific
personality that speaks
about you. Let us help
capture the essence of
your creation to leave
that lasting impression.

Your imagination, Our Ingenuity

Whether you choose tradition, innovation,
region or individuality, the imagination used
to create your beer should not be constrained
by the process technology making it.

Harness the capability
to add in your choices to
create a unique beer full
of personality, be it fruity,
delicate, bright, or as
dark as you desire.

Your Process Partner

SPX FLOW helps to enhance your ideas
by providing clarity to your process.
Our experience will give you the necessary
technical support and best-fit technology
on your journey towards brewing perfection.



Why SPX FLOW Clarifiers are the Right Choice



Oriented Around You

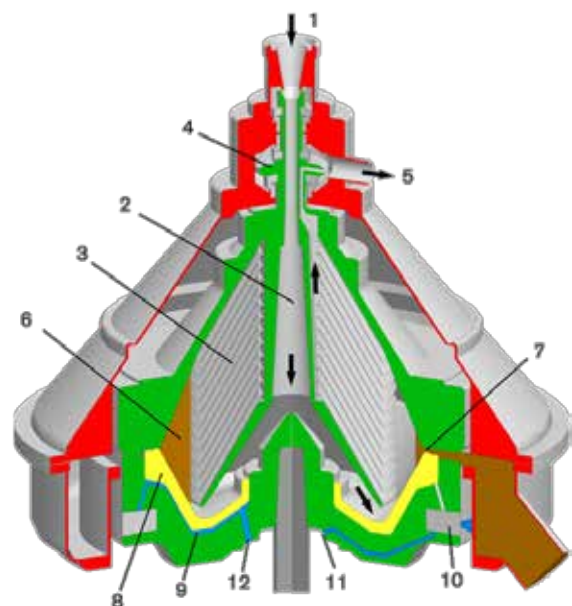
SPX FLOW hermetic clarifiers remove residual yeast and other non-soluble solids quickly and efficiently. Thanks to low oxygen pick up, clarification does not impact the flavor and aroma of the beer.

Optimization of design standards, durable construction and strict quality control procedures ensure our customers receive the beer clarifier that is best suited for their specific applications.

How does it work?

Centrifugation is a process that involves the use of centrifugal force for the sedimentation of heterogeneous mixtures. The mixture enters into a rotating bowl through an inlet pipe and is guided into a separation area made of stacked conical disks. The forces generated inside the bowl guide the solids to the bottom of the disk surface and releases them through ejection ports located in the solids chamber. The valuable product remaining in the disk stack rises upwards and is moved by a centrifugal pump to the outlet pipe.

The natural sedimentation of the liquid is accelerated by the centrifugal clarifier allowing for a faster brewing process. Traditional settling process time is reduced allowing your production to be more flexible and ready for the market.



- | | |
|-----------------------------|-------------------------|
| 1. Product inlet | 7. Ejecting ports |
| 2. Distributor | 8. Sliding piston |
| 3. Disk stack | 9. Closing chamber |
| 4. Centrifugal Pump | 10. Bowl valve |
| 5. Clarified product outlet | 11. Opening water inlet |
| 6. Sludge chamber | 12. Closing water inlet |



To learn more about how the Seital clarifier works,
please visit SPX FLOW's YouTube channel or
www.spxflow.com/seital.

SPX FLOW's Recipe for Successful Brewing



FLEXIBILITY

SPX FLOW clarification technology provides multiple filtration solutions for applications found within both the hot and cold side of the brewery.



RELIABILITY

Skilled craftsmanship and premium materials result in the highest levels of quality.



EXPERIENCE

Over 30 years of tailor-made solutions installed in breweries around the globe.



SKILL

SPX FLOW Technicians have years of experience in designing, manufacturing, installing and servicing equipment.



SUPPORT

Availability of technical support anywhere, anytime.



EFFICIENCY

Achieve better power efficiencies and lower maintenance costs.



Low CO₂
Losses

Reduced Production
Time

Minimal Oxygen Pickup,
Typically < 10 ppb

Gentle Product
Handling

Plug & Play

Optimized Tank
Utilization

Increased Shelf Life

Reduced Product
Losses

Sanitary design, fully
cleanable (CIP)



SPX FLOW is committed to:

Efficient clarification

When it comes to obtaining the required clarity, time counts. Thanks to continuous R&D, innovative designs and robust construction, SPX FLOW clarifiers are able to increase the clarification performances by reducing production times and maintain consistent beer quality.

Versatility

Saving cost and time during the installation of the machine can make a big difference. The skid mounted design of our SPX FLOW Seital clarifiers is extremely efficient, compact and easy to install into existing process lines.

Respect for the product

SPX FLOW clarifiers, which are equipped with a special soft inlet feeding system to ensure gentle product handling in order to minimize turbulence, keep quality of the product intact. Hermetic sealing minimizes the oxygen pick up and CO₂ loss, avoiding oxidation of the product and changes to the beer's aromatic and organoleptic characteristics.

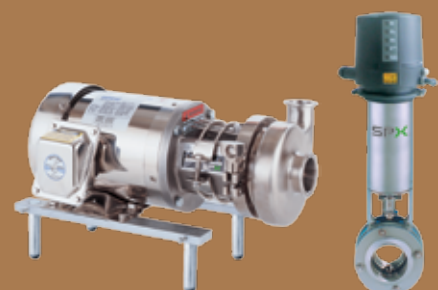
Hygiene

Optimal hygienic conditions and the ability to be cleaned easily are fundamental aspects that SPX FLOW clarifiers achieve thanks to their internal process control design and additional CIP spray nozzles fixed into the inside cover of the bowl.

Performance

Get the most out of your production by minimizing product losses. Thanks to their fast and precise discharge, SPX FLOW clarifiers help keep product loss to a minimum and maximize the dry solids content in the discharge.

SPX FLOW also designs and manufactures high quality pumps, valves and heat exchangers for the brewing industry. Visit www.spxflow.com to learn more about how our portfolio of innovative process technology from our world renowned APV® and Waukesha Cherry-Burrell® brands can help your brewery grow.



Centrifugal and Positive Displacement Pumps

Butterfly, Single Seat & Mix Proof Valves



Plate Heat Exchangers



Download the SPX FLOW Virtual Reality app from the App Store or Google Play and take a virtual tour of a modern craft brewery. Learn about key equipment features and benefits to help you discover the best solutions for your toughest application challenges.



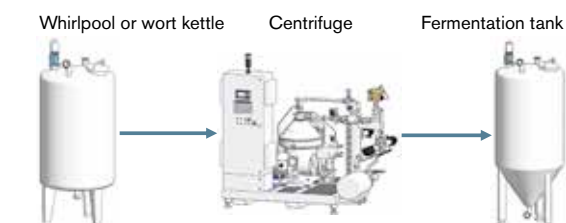


Processes

Hot wort clarification process

Available capacities: 15 - 400 hl/h (396-10566 gal/h) *

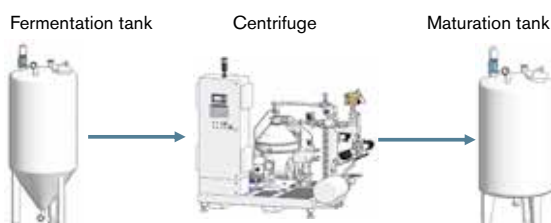
- No need for a whirlpool or a settling tank
- Increase wort yield
- Control Maillard reaction and color
- Lower wort losses, dryer trub removal



Green beer or FV to BBT clarification process

Available capacities: 25 - 600 hl/h (660-15850 gal/h) *

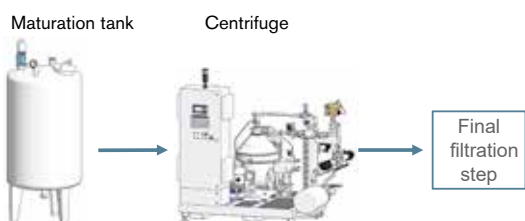
- Reduction of the yeast content between the fermentation and maturation step
- Shorter maturation time frees up tank resources
- Lower investment costs as fewer conditioning bright tanks are required



Before DE / Kieselguhr or sterile filtration

Available capacities: 25 - 600 hl/h (660-15850 gal/h) *

- Reduction of the high yeast load before the final filtration step
- More efficient final filtration process
- Better performance and lower investment, spare parts and cleaning costs

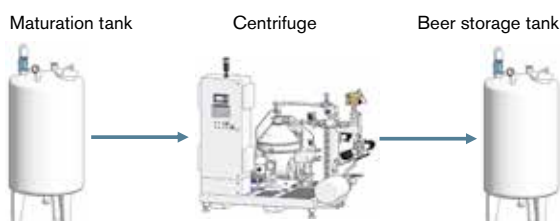


* Power: 5 kw - 45Kw (6 - 60 hp)
Approximate footprint: 1700x800 mm - 3350x2200 mm

Special polishing

Available capacities: 20 - 110 hl/h (528-2.905 gal/h) *

- Polishing the beer in one single final filtration step; no need for DE / Kieselguhr or membrane filters
- No powders, floss or membranes to backwash or replace
- Lowers investment costs of centrifuge by removing need for other filtration equipment, media and operation



Flexibility for the perfect brewing process



The Right Size Clarifier For You

Flexible Options

You can choose from numerous options making it possible to configure into Semi or Fully-automated units, thus supplying what you really need in order to process your beer with your material and staffing levels.

Our full range of models optimally matches small and medium-sized breweries that can scale up to support your future growth.

Semi-Automated Clarifiers:

For growing breweries

Installing Seital series centrifuges is easy! Precision and time savings combine to offer you a single solution to keep your beer flowing. The basic model centrifuge from SPX FLOW is designed to support start up breweries with a unit optimized for smaller production. To preserve the craftsmanship of your beer the centrifuge minimizes oxygen intake, which causes taste and olfactory changes.



Fully-Automated Clarifiers:

For breweries aiming for more independence

The totally automated clarifier is intended for breweries with higher yields who want to speed up the production process with a highly independent system. Apart from increased flow control and lower oxygen pick-up thanks to a sophisticated mechanical sealing system, the solids chamber empties automatically with turbidity control at the outlet that can be combined with a recirculation system. The fully automated model can be equipped with a feed pump and a frequency converter for a complete process flow control combination. A solids discharge pump can also be integrated into the unit for easy and effective disposal of yeast, protein and dry hops. The system can be made even more flexible with the addition of pneumatic controlled inlet and constant pressure outlet valves. You can finally take more control of your brewery filtration process!



Create YOUR
passion

SPXFLOW



The right size machine engineered for your brewery – from micro to big beer – adapted with the level of automation to fit your experience, process, budget and growth potential.

Global locations

SPX FLOW, Inc.

611 Sugar Creek Road
Delavan, WI 53115
United States of America
1 800-252-5200

SPX FLOW, Inc. - Italy

Via delle Prese, 14
36014 Santorso (VI) - Italy
39 0445 540232

SPX FLOW, Inc. - China

No. 666 Fengjin Road
Xidu Industrial Park
Shanghai
201401 China
+86 21 6715 8181

Based in Charlotte, North Carolina, SPX FLOW, Inc. (NYSE: FLOW) is a multi-industry manufacturing leader. For more information, please visit www.spxflow.com

SPX FLOW, Inc. reserves the right to incorporate our latest design and material changes without notice or obligation.

Design features, materials of construction and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing. Please contact your local sales representative for product availability in your region. For more information visit www.spxflow.com.

The green "s" and "x" are trademarks of SPX FLOW, Inc.

ISSUED 107_01_06_2016_US

COPYRIGHT © 2016 SPX FLOW, Inc.