

FinnSonic

FINNSONIC Versa Genius+

Ultrasonic cleaning lines



cleaner • safer • smarter

FINNSONIC

Versa Genius+

Precision cleaning solutions for manufacturing industries

FinnSonic Versa Genius+ represents the fourth generation of our popular Versa range. Its latest incarnation offers even better cleaning results – with advancements in areas like particle cleanliness, automation features, and aesthetics. An already strong product has gone through a revolutionary design process to combine improved cleanliness result with smart construction, resulting in more value for the customer.



Ultrasonic cleaning is an extremely useful method for demanding industrial cleaning

- » Cleans even the hardest impurities from complex parts fast with only the minimal manual intervention
- » Gentle – non-abrasive to the base material
- » Safe – controlled process in an enclosed space without splashing into the workspace
- » Environmentally friendly – no harsh chemicals, low energy and water consumption

FinnSonic Versa Genius+

Improves Production Flow and Reduces Operational Costs

Cleaner – all aspects of construction and functionality aim for optimal cleaning results

- » Minimized particle emission from machine
- » Variety of powerful cleaning techniques
- » Bath maintenance ensures process stability

Safer – careful consideration of environmental, health and safety aspects

- » Reduced water and energy consumption
- » High level of protection from hazards
- » High level operator ergonomics

Smarter – maximizing productivity, while minimizing operating costs, automatically

- » Increased throughput
- » Lower detergent and wastewater costs
- » Automatic optimization

Main characteristics

- » Modular construction – flexible configuration for optimal cleaning results
- » Tank sizes ranging from 46 to 180 litres
- » Total load capacity ranging from 15 to 50 kg
- » Manual and fully automated solutions available

Main applications

- » Precision cleaning
- » Machinery components cleaning according to a cleanliness standard
- » Surface preparation and finishing of metal products
- » Tool and mould cleaning in maintenance



Cleaning process modules

A solid foundation

FinnSonic Versa Genius+ cleaning lines can include washing, rinsing and drying modules and their options. The scope can range from a single manually operated unit to a fully automatic multi-stage line. Either way, they are all based on the robust treatment tank modules.



High level of standard features including

- » Heating and thermal insulation
- » Perimeter lip on each unit and drip plates between stages maintain tidy appearances.
- » Serrated overflow weir and spray bar enabling surface skimming
- » Inclined tank base for easy draining and clean up

Wide range of modular options including

- » Basket dunking – more intense and uniform washing and rinsing results. Contact free design and isolated drive system contribute to the cleanliness results and durability of the system.
- » Noise suppression kit and lip extraction connectivity help improve operator health and safety.
- » Lift off, hinged or pneumatic actuated lids save energy and help contain vapor and noise.
- » Electropolished stainless steel wash baskets with compatible inserts to support virtually any type of parts. Rotating baskets also available for bulk or complex items.



Intuitive control system

- » Icon-based user interface on each module for easy set up and operation of manual lines.
- » Smart features including: User-level management and programs, Ultrasonic power setting and Automatic Stop & Go control for circulation pumps.
- » Enclosure cooling fan ensures efficient cooling of the integrated control system and ultrasonic generators.

FinnSonic Genius ultrasonic cleaning technology

- » Automatic frequency and power regulation – constant maximum performance
- » Computer-controlled fully digital generator – reliable and energy efficient



FinnSonic Cleaning techniques

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- » Ultrasonic agitation – precise and pervasive cleaning of even the most complex of items.
- » FinnSonic Genius ultrasonic technology - constant maximum performance.
- » Ultrasonic transducers bonded to tank base. Side transducer versions also available.

RINSE

- » Immersion rinsing for the removal of particle and detergent residues
- » Cascade rinsing stages also available - improved rinsing results and reduced water consumption.





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- » Alternating ultrasonic and spray under immersion in one unit for thorough component washing or rinsing with complex geometry and internal channels.

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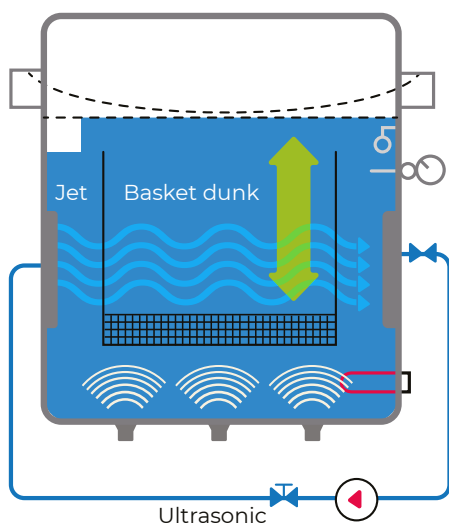
- » Spray under immersion – flow washing or rinsing of parts even with internal channels.

SPRAY

- » Oscillating spray in air washing or rinsing – effective on loose debris or thick contamination layers on component surface.
- » Closed circuit with a storage tank for wash liquid – water and energy saving.

DRY

- » Recirculating hot air dryer with powerful fan and heating - for effective drying of parts.
- » Non-combustible thermal insulation on chamber and lid - safe and energy efficient
- » HEPA filter with fan for air inlet and internal fine filter options available – reduced contamination from the ambient air
- » Vacuum dryers also available – effective drying of complex components

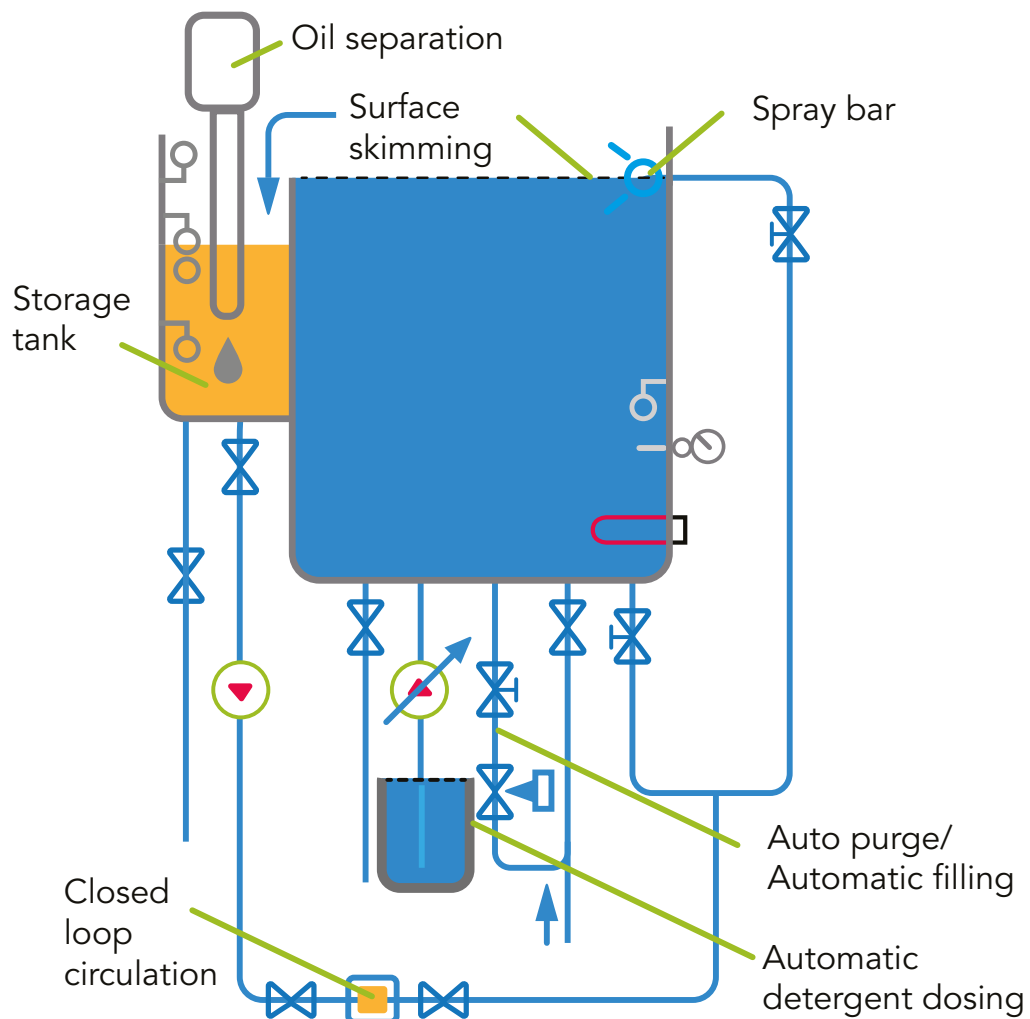


Bath maintenance

Constant cleaning quality, minimized operating costs

Bath maintenance options play an important role when it comes to cleaning results, process stability and operating costs. Versa Genius+ presents smart automated options such as automatic detergent concentration regulation that maintains correct detergent concentration in the tank automatically, ensuring correct cleaning performance as well as avoiding unnecessary detergent consumption.

Fluid circuits are made with stainless steel piping resulting in longevity and wide chemical compatibility.



Most bath maintenance options, including the compact storage tanks, can be integrated within the encapsulation of automatic lines resulting in a more compact footprint and a cleaner look.



Closed loop circulation

- » Particle filters for removing solid particles – necessary for achieving higher cleanliness levels, increases bath life
- » Rinse water regeneration with active carbon and mixed bed ion exchange resin – residue free rinsing with demineralized water

Filter blockage alarm

- » Automatic notifications when filters require changing

Storage tank

- » A range of different size buffer tanks for bath maintenance – extends bath life
- » Continuous surface skimming of oil and other debris from the wash unit – avoids recontamination of parts when lifting out

Oil separation

- » Removes oil from the surface of the storage tank – longer bath life
- » The oil is collected into a separate canister – environmentally friendly waste separation

Automatic purge

- » Adds fresh water with each basket – ensures stable rinsing quality
- » With optional conductivity-based automatic purging control – optimizes water quality and consumption

Automatic filling

- » Maintains correct water level in tank automatically – reduces operator involvement

Automatic detergent dosing

- » Dosing unit adds chemical to inlet water automatically – ensures chemical is added during operation.
- » Can also be used for initial filling – improves safety in chemical handling

Automatic detergent concentration regulation

- » Chemical concentration in tank is measured and automatically corrected – maintains precise concentration in tank while avoiding unnecessary detergent consumption.

Piping

- » Common water inlet and drain piping in stainless steel – makes installation easy with single connection points.

Bath monitoring

- » In tank conductivity measurement – rinse water quality or detergent concentration monitoring
- » PH measurement – keeping track of changes in PH

Process automation and materials handling

Productivity, process stability and safety

When the tank size, load weight or capacity requirements grow, materials handling and automatic process control become essential. A step up from manual processing is the FinnSonic PTM Easy Lift which assists with basket handling in an otherwise manual line. Ultimately the FinnSonic TD Basket Transporters provide fully automatic basket handling and process control. Automatic basket handling increases line capacity and reduces labour input while contributing to ergonomics, health and safety. The automatic process control ensures process stability and maximum productivity.

FinnSonic PTM Easy Lift Unique FinnSonic innovation

Assists with manual handling of baskets through the process – more ergonomic and safe operation

A control arm with integrated thumb switches for controlling the pneumatic lifting – easy to use

Horizontal movement takes place on a passive linear guide – precise positioning with light manual input



FinnSonic TD Automatic Basket Transfer Systems

Reduces labour costs up to 50 %

- » Fully automatic basket handling and process control – increased productivity and process stability
- » Transporter design that minimizes particle contamination, together with optional laminar flow boxes on the encapsulation make the line suitable also for clean room applications.

- » Full encapsulation with lighting, access windows and extraction connections (optional) – contains noise, heat and vapour and prevents external contamination from getting into the process



- » Intuitive graphic user interface – providing clear overview of the line and easy setup of cleaning processes.
- » FinnSonic NetService – secure remote support connectivity
- » Data logging, reporting and connectivity to factory systems (optional) – supports traceability and data collection.

- » Loading and unloading conveyors (optional) – automatic buffered infeed of baskets
- » Basket flagging for automatic program selection (optional) – facilitates running a mix of various wash programs

Ultrasonic wash process modules

Technical information	FinnSonic Versa Genius+ 50	FinnSonic Versa Genius+ 120	FinnSonic Versa Genius+ 180
Basket dimensions, internal (mm)	267 x 367 x 206(h)	367 x 567 x 315(h)	430 x 610 x 395(h)
Load capacity, parts (kg)	10	26	39
Module dimensions, external (mm)	549 x 971 x 968(h)	653 x 1174 x 968(h)	723 x 1217 x 968(h)
Filling volume (l)	46	120	180
Heating power (W)	2000	3000	5000
Ultrasonic effect nom/peak (W)*	600/1200	1200/2400	2400/4800
Ultrasonic frequency (kHz)**	27	27	27

* Transducers bonded to tank base. Side transducer versions also available.

**37 kHz also available

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FinnSonic maintains certified quality program ISO 9001:2015.