

ZWAG Nutsche Filter

ZWAG Nutsche filters are enclosed, single-plate systems for pressure filtration and vacuum drying. With integral heating and drying, multi-functional ZWAG filters are compact and versatile for manufacturing, pilot and laboratory applications.

Manufactured in the United States of America, ZWAG filters combine superior design with a program of total support that makes filtration easy.

ALL-IN-ONE OPERATION WITH ULTIMATE CONTROL

The ZWAG filter has every tool needed for the ultimate batch control — pressure and vacuum rated, agitation, replaceable filter media, temperature measurement and control, and contained discharge.

SAFETY THROUGH CONTAINMENT

Through all operation stages, the process is fully contained, a critical element when handling hazardous solvents in large volumes. The vessel can be kept inert through nitrogen blanketing, preventing solvent vapors from being able to escape from the filter.

PROVEN CGMP DESIGN

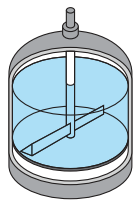
ZWAG filters have been used for decades for production of active pharmaceutical ingredients. These compounds can be highly toxic requiring superior containment capabilities that the ZWAG accommodates through sanitary, tri-clamp connections and cleaning in place (CIP) spray balls.

SIZED TO MEET EXACT PROCESS REQUIREMENTS

Agitated Nutsche filter dryers come in a wide range of sizes from 0.1m² to 6m² in surface area, and 50L to 6,000L in volume. At the largest size, ZWAG units are able to process over 2,000kg of dried cake.

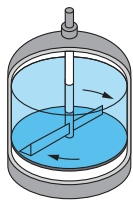


STEP-BY-STEP FOR QUALITY PERFORMANCE



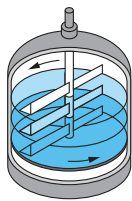
1 ALL-IN-ONE OPERATION

Sized for your production batch, your ZWAG is never a bottleneck.



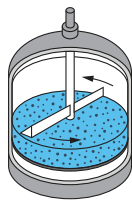
2 STIRRING FOR SLOW-FILTERING PRODUCTS

After filling, continuous stirring just above the filter plate reduces filtration time.



3 UNIFORMITY FOR QUICK-FILTERING PRODUCTS

The cake is layered with evenly distributed particles by progressively raising the agitator blades.



4 PRESS FOR QUALITY

The agitator smooths down the cake to close cracks and create a uniformly permeable structure.



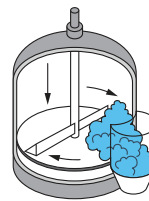
5 WASH FOR QUALITY

Liquid is sprayed evenly over the cake for thorough diffusion washing, and can be easily re-slurried for greater purity.



6 UNIFORM DRYING

Solids are kept moving over the heated bottom for speedy, complete drying.



7 TOP DOWN DISCHARGE

The agitator blades scrape the cake through the side door from top to bottom.

CAPACITIES

Your ZWAG filter is customer-configured to your specifications from standard components that have been proven effective many times over. It's the surest way to bring a new system on-line quickly and without problems. With a complete range of off-the-shelf options plus engineering applications know how, ZWAG by Steri can meet your special needs.

SIZE*	SURFACE AREA	VESSEL DIAMETER	NOMINAL WORKING VOLUME**	TOTAL VOLUME**	SOLID VOLUME	AGITATOR STROKE
m ²	m ²	mm	liters	liters	liters	mm
0.25	0.27	600	150	189	75	300
0.50	0.49	800	300	352	150	300
0.75	0.76	1,000	450	572	225	300
1.0	1.13	1,200	1,000	1,190	500	500
1.6	1.77	1,500	1,600	1,930	800	500
2.0	2.26	1,700	2,000	2,510	1,000	500
3.0	3.14	2,000	3,000	3,680	1,500	500
4.0	4.15	2,300	4,000	5,030	2,000	500
5.0	5.31	2,600	5,000	6,430	2,500	500
6.0	6.15	2,800	6,000	7,800	3,000	500

* Larger size units can be designed, contact factory.

** Vessel height can be extended to increase batch volume.



STERI TECHNOLOGIES LLC

857 Lincoln Avenue • Bohemia, New York 11716 • USA

Telephone: (631) 563-8300 • Sales@Steri.com

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