STERI TECHNOLOGIES

ZWAG Nutsche Filter
Filter Shaft / Blade

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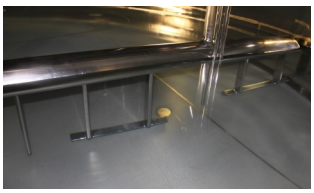
Steri offers several standardized blade designs, but we don't stop there. Depending on your process requirements, we can customize a blade to fit your exact needs. Blade shapes, blade contours, internal heating or cooling paths, bellows and more can help improve the production of your product.

Blade Designs

Large Triple S-Blade

Triple S-Blade with Bellows

The underside of the agitator blade is inclined at a precise calculated angle above horizontal. When the agitator is rotated toward the open face, this angle assists in smoothing the cake to improve filtration efficiency. When rotated in the opposite direction it assists in slurry mixing and cake discharge.

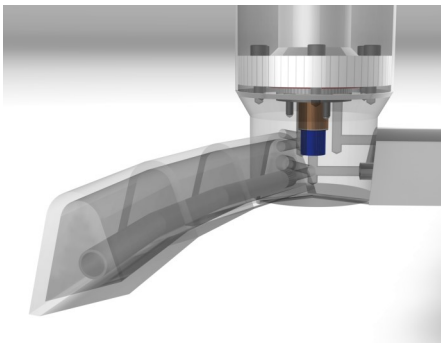


Mixing Baffles

Large Twin Blade

Heating / Cooling

The agitator shaft and blade can be configured to allow heat or cooling transfer fluid to flow in and out. Up to 50% additional heating or cooling of the slurry or cake can be achieved via the agitator. The offset feature of the gear box allows the agitator shaft to pass through the gear box, leaving the shaft end free to mount a rotary union. The heat transfer fluid enters and exits through the top of the agitator shaft via the rotary union, travels to the tip of each blade and back up through the shaft. The blade is 100% welded, eliminating leakage into the batch.



Heated Blade with Supply Tube

Internal Bellows

Fully Welded Bellows

The use of bellows over the agitator shaft inside the filter prevents contamination. Raising and lowering the agitator naturally causes some portion of the shaft to be inside and outside during the full vertical travel of the agitator. The bottom of the bellows is welded to the agitator just above the blade while the top is mechanically fastened and sealed to the rotating sleeve of the upper seal. The arrangement keeps the shaft always 'outside' of the vessel and away from the product. The material used for the bellows is typically the same as that of the vessel.