



## FUNDA Filter

The FUNDA filter is a centrifugal discharge, pressure leaf filter designed for solid-liquid separation. It is a compact, self-cleaning, multi-plate filter with integrated heating and drying for manufacturing, pilot and laboratory applications.

The FUNDA filter is completely contained and capable of being fully automated which provides a safe and hands-free filtration solution.

### A SAFE SOLUTION

A contained, fully automated system protects people and the environment. Spent cake containing hazardous substances can be efficiently and safely collected for disposal.

### AN EFFICIENT SOLUTION

The FUNDA filter will not only help you reduce labor costs, but also virtually eliminate product losses with total heel recovery. Its horizontal, dimpled filter plates assure complete drainage and uniform cake deposition. The filter plates are self-supporting, eliminating the need for outer supports that interfere with cake discharge.

### A RELIABLE SYSTEM

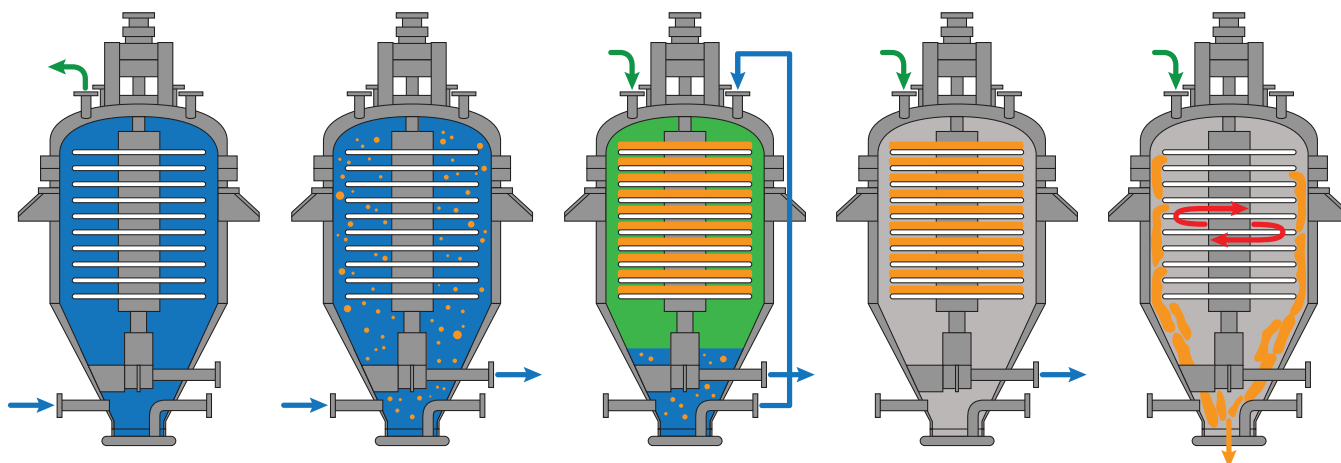
Steri uses strict manufacturing tolerances to minimize problems such as excessive bearing wear, seal failures and excessive vibrations during discharge. FUNDA filters provide a low maintenance, reliable filter that is capable of meeting the most rigorous demands.

### COMPREHENSIVE OPTIONS

Steri offers a complete range of off-the shelf options plus the know-how to configure your filtration system to each specific application. With a broad range of standard components, Steri has flexibility in design to provide a tailor-made filter using proven designs.



## THEORY OF OPERATION



### 1 FILLING

The vessel is filled with unfiltered product or pre-coat, and circulated through the overflow nozzle for an even suspension.

### 2 PRE-COAT/ PRE-FILTRATION

The suspension is circulated through the filter elements to produce a porous pre-coat layer.

#### FILTRATION

The filtrate passes through the building filter cake, filter screen and spacer ring area to the hollow shaft and filtrate outlet.

### 3 HEEL VOLUME FILTRATION

After filtration and/or washing, the heel liquid can be recycled by pump into the vessel head from the bottom outlet. While the liquid is cascading onto the plates, inert gas is applied to create necessary filtration pressure until the entire heel has been filtered. Product recovery is maximized by this process, and is faster and more efficient than systems utilizing scavenger plates.

### 4 WASHING

The wash liquid follows the same route as in filtration. Cascade washing using the heel volume filtration method reduces the wash liquid volume.

#### HEATING/DRYING

Free residual moisture is blown from the cake using inert gas such as steam, air or nitrogen. Further drying can be accomplished by heating the cake using the vessel jacket and hot gases.

### 5 DRY CAKE DISCHARGE

As the filter nest rotates, the dry friable cake is flung from the plates, falls freely to the bottom, and exits through the bottom discharge opening.

#### SLURRY CAKE DISCHARGE

The wet cake is flung from the rotating plates, falls to the bottom, and exits through the discharge nozzle, aided by a suitable solvent. Gas pressure may be used to assure the flow of viscous mixtures.

FUNDA FILTER TYPE R SIZE	FILTER AREA*	PLATE SPACING	PLATE DIAMETER	PLATE QUANTITY	MAXIMUM CAKE VOLUME	FILTER WEIGHT (EMPTY)	FILLING VOLUME	MOTOR SIZE	TOTAL HEIGHT	REQUIRED HEADSPACE
Model #	m <sup>2</sup>	mm	mm	#	liters	kg	liters	hP	mm	mm
R-5m <sup>2</sup> 11-800-40	5	40	800	11	160	1530	580	10	3030	2255
R-7m <sup>2</sup> 16-800-40	7	40	800	16	224	2050	900	10	3140	2320
R-10m <sup>2</sup> 22-800-40	10	40	800	22	320	2460	1100	15	3430	2350
R-15m <sup>2</sup> 33-800-40	15	40	800	33	480	3090	1740	15	3970	2640
R-20m <sup>2</sup> 28-1000-40	20	40	1000	28	640	3200	2120	20	3980	3040
R-25m <sup>2</sup> 35-1000-40	25	40	1000	35	800	3630	2430	25	4310	3255
R-30m <sup>2</sup> 43-1000-40	30	40	1000	43	960	4150	2750	30	4680	3595
R-35m <sup>2</sup> 50-1000-40	35	40	1000	50	1120	5280	3100	35	5010	3990
R-40m <sup>2</sup> 57-1000-40	40	40	1000	57	1280	6100	3500	40	5340	4285

\*Other sizes available upon request up to 80m<sup>2</sup>.

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