

SPRAY FILTER

Performance: The degree of fractionation and/ or microstraining depends on many factors; inlet consistency, spray pressure, inlet filler content, micron opening size, and particularly fines content of the fiber fraction.

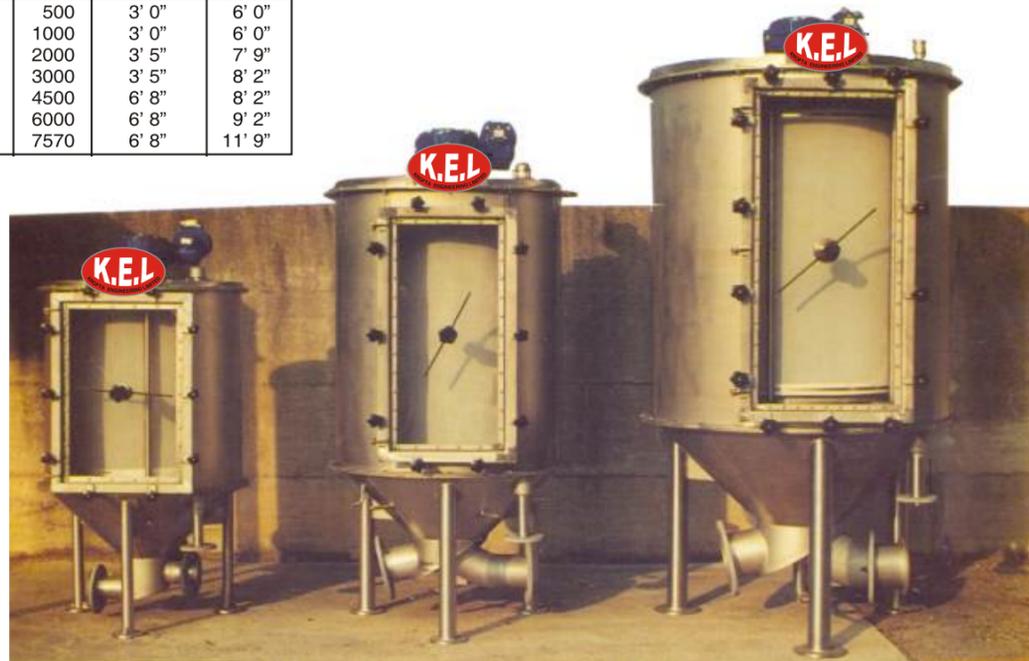
The following results can be expected :

- Coarse impurities are separated out. All the water is microstrained.

- The fiber fraction is retained by the cloth and can be recovered.
- Changes in fiber content by the KROFTA Spray Filter are minimized so that subsequent clarifiers operate under a uniform load. The KROFTA Spray Filter improves the operation of clarifiers especially floatation ones, as it aerates the effluent making it more adaptable to floatation.

Measurements /Capacities

Type	Flow GPM	Flow LPM	Outside Dimension	overall Height
500	132	500	3' 0"	6' 0"
1000	264	1000	3' 0"	6' 0"
2000	528	2000	3' 5"	7' 9"
3000	790	3000	3' 5"	8' 2"
4500	1185	4500	6' 8"	8' 2"
6000	1580	6000	6' 8"	9' 2"
7200	2000	7570	6' 8"	11' 9"



Application :

DE-INKING PLANTS : Separation of good fibers from fines and ink for a higher yield, less clay content in the stock, and reduced disposal requirements.

BOARD MILLS : Fractionation of the longer fibers from the effluent for use in the liner stock, while the fine fraction is used in the filler stock.

FINE PAPER and TISSUE MILLS : Recovery of fiber through the fractionation of the effluent thus reducing total sludge volume.

MICROSTRAINING of the EFFLUENT for SHOWERS : Used to prevent the plugging of shower nozzles when either clarified or unclarified water is used.



SPRAY FILTER

Fiber Recovery

Fractionator

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SPRAY FILTER (SPRF)

Fiber Recovery

Fractionator

Advantages :

- **SIMPLE OPERATION:** FEW MOVING PARTS AND VERY LOW RPM
- **SELF-CLEANING:** BUILT-IN CLEANING SHOWER SAVES DOWN-TIME
- **NO FRESH WATER REQUIRED:** CLEANING SHOWER NOZZLES ARE AN OPEN, NON CLOGGING TYPE. FILTERED WATER CAN BE USED IN THE SHOWER
- **EASY MAINTENANCE:** WIDE ACCESS DOOR ALLOWS EASY CHANGING OF THE CLOTH AND ACCESS TO THE INTERIOR
- **INEXPENSIVE FILTER SCREENS**
- **WINDOW WIPER** operated manually is located on inner side of the door.

Purpose : The KROFTA SPRAY FILTER is specifically designed for the filtration of effluents containing from 20 PPM to 5000 PPM of solids. A fine mesh cloth with openings from 75-500 microns is used as the filter media, either to separate long fibers from clay and filler or as a safety filter for showers using clarified water. The KROFTA SPRF meets the need for high throughput units which can handle wide variations of solids content. It is equipped with a cleaning shower which greatly reduces the need to remove the cloth for cleaning.

	LOW FILLER CONTENT			HIGH FILLER CONTENT		
	FLOW	CONSISTENCY	ASH	FLOW	CONSISTENCY	ASH
	l/min	g/l	%	l/min	g/l	%
INLET	830	3.3	18.5	900	6.4	69
FINE FRACTION	568	1.4	49.2	717	5.6	81
COARSE FRACTION	262	7.8	8.9	183	10.1	40

Example of Fractionation and Fiber Recovery

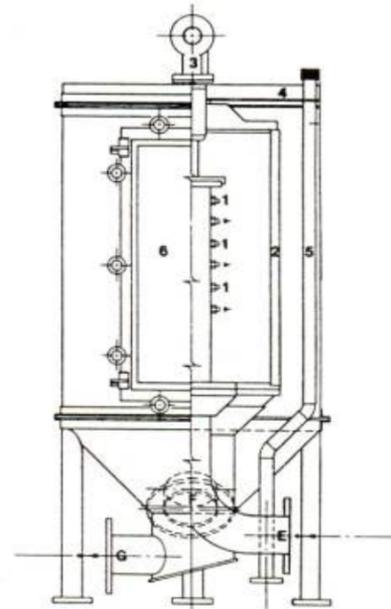
Above Data are for :
26 T/d of good de-inked stock Production operating with 50 lit/ Wastewater per kg of final Production

Spray Filter recovers :
From the Wastewater with
low Filler Content 2.7 T/d = 10.4% of Production
high " " 1.5 T/d = 5.8% of Production
Increasing the **NET** Production of good de-inked stock proportionally

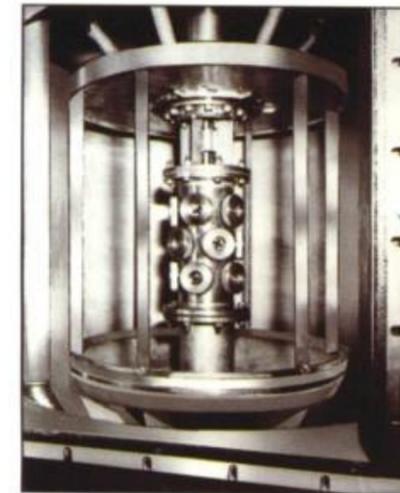
Operation description

The water to be fractionated enters at (E) with a pressure of about 0.8 kg/cm²(11PSI). Through special nozzles (1), it is evenly sprayed against a fine plastic cloth (2) fastened on a drum. The coarse fraction falls down inside the cloth cylinder and is discharged through the pipe (G) for reuse. The fine fraction passes through the cloth (2) and is discharged through the pipe (F). The gear-motor (3) continuously turns the cloth drum (2), the intermittent cleaning shower (5) sprays the cloth (2) clean, making it unnecessary to change the cloth for cleaning. For intermittent shower cleaning the filtered water is used.

A large front door with a plexiglass panel (6) allows easy access to the cloth drum (2). By means of simple fasteners the cloth can be quickly changed.



SPRF Inside view (without cloth)



SPRF Inside view (with plastic cloth)

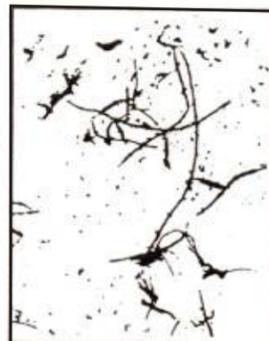


Construction : All parts in contact with the water are built of 304 stainless steel. The access door has a plexiglass window. All bearing's surfaces are made of corrosion-proof plastic materials.

Entering raw water



Coarse fraction



Fine fraction

