

FIELDS OF APPLICATION

Baleen can be used in many applications, containing both organic and inorganic waste constituents. In applications where biodegradable materials are problematic to conventional screening and filtration systems, Baleen demonstrated that filter blinding does not occur. The baleen filter is especially applicable in water treatment approaches where waterborne materials were previously regarded as problematic to conventional screening and filtration process. Baleen removes hairs, fibres, absolutely and non aqueous constituents such as fats and oils efficiently.

MARKETS

- Wine & Beverage Industry
- Meat & Byproducts Industry
- Fruit & Vegetables Industry
- Food Processing
- Agriculture
- Chemical & Mining Industry
- Pharmaceutical Industry
- Tannery
- Municipal sewage
- Irrigation

Sample Industry Case Study – MEAT & BYPRODUCT

Raw wastewater of 'Meat and Byproduct' origin consists primarily of organic matter e.g. flesh, blood, hair, grease etc. Apart from drain grates, run-down screens and rotating drums, screening of wastewater to less than 3 to 5 mm is not practical in many situations due to 'filter blinding' caused by high volumes of troublesome constituents involving fibrous and semi-aqueous components.

Traditionally the filtration of wastewaters at less than 2 to 3 mm has not been possible for primary treatment applications, and only coarser screens have been reliably used to prevent entry of large constituents into subsequent treatments (without offering significant contribution to treatment).

With ever tightening legislation, treatment works are challenged by new regulation with the performance of biological treatment systems, clarifiers and grease traps under close scrutiny. In such circumstances Baleen offers numerous advantages and cost benefits by replacing inefficient conventional technologies or complementing existing works.

Filtration by Baleen at the primary (secondary and tertiary) treatment level offers immediate reductions in SS, TDS, BOD and COD prior to further treatment. As a result, Baleen can reduce effluent loading early in the process to improve performance of downstream treatment operations and thereby assist with legislative compliance. Tanneries produce the industry's most potent and noxious waste stream.

Sample results are provided below:

TANNERY - direct from tanning drum ex: de-hairing			
BALEEN model 10W10C: FLOWRATE 25 KL/hr			
Sulphide Formula			
Parameter	ex: 3-mm drum screen	ex: Baleen 95-micron	% reduction
SS	61,700 mg/L	2,720 mg/L	95.5
TDS	22,000 mg/L	9,900 mg/L	55.0
BOD	13,200 mg/L	3,000 mg/L	77.0
HairSave Formula			
Parameter	ex: 3-mm drum screen	ex: Baleen 35-micron	% reduction
SS	5,770 mg/L	1,800 mg/L	68.9
TDS	29,100 mg/L	18,100 mg/L	34.4
BOD	18,700 mg/L	11,900 mg/L	28.8
COD	37,450 mg/L	23,300 mg/L	37.8
TKN	3,370 mg/L	1,890 mg/L	44.0
Na+	2,789 mg/L	1,676 mg/L	40.0
Sulphide Formula			
Parameter	ex: 3-mm drum screen	ex: Baleen 900-micron	% reduction
SS	58,000 mg/L	46,000 mg/L	20.7
TDS	13,000 mg/L	12,000 mg/L	7.7
BOD	28,700 mg/L	24,800 mg/L	13.6



Sample Industry Case Study – AGRICULTURAL

Wastewater of 'Agricultural' origin comprises a broad range of organic and inorganic constituents associated with livestock and/or produce e.g. dirt, fruit, vegetable or faecal matter etc. Apart from run-down screens and rotating drums, screening of wastewater to less than 1 to 2 mm is not always practical in many situations due to 'filter blinding' caused by the characteristic high concentration of fines.

Traditionally the filtration of wastewaters at less than 1 mm is not possible for primary treatment applications, and only coarser screens have been reliably used to prevent entry of large constituents into subsequent treatments (without offering significant contribution to treatment).

With ever tightening legislation, treatment works are challenged by new regulation with the performance of biological treatment systems and settlers under close scrutiny. In such circumstances Baleen offers numerous advantages and cost benefits by replacing inefficient conventional technologies or complementing existing works.

Filtration by Baleen at the primary (secondary and tertiary) treatment level offers immediate reductions in SS, TDS, BOD and COD prior to further treatment. As a result, Baleen can reduce effluent loading early in the process to improve performance of downstream treatment operations and thereby assist with legislative compliance.

Due to the nature of the waste stream, filtration can be further enhanced by the use of flocculant and/or coagulant to remove colloidal fines, as a reliable alternative to DAF technology.

Sample results are provided below:

PACKING PLANT			
BALEEN model 10W10C: FLOWRATE 100 KL/hr			
Inline Recycle			
Parameter	ex: 2 mm screen & sand trap	ex: Baleen 95-micron	% reduction
SS	4,590 mg/L	420 mg/L	90.9
BOD peak		<100 mg/L	
PIGGERY			
BALEEN model 10W10C: FLOWRATE 30 KL/hr			
Pre-settling dam			
Parameter	ex: balance tank	ex: Baleen 35-micron	% reduction
TSS	9,010 mg/L	4,980 mg/L	50.2
Inhoff @ 30 min	350 mL	245 mL	30.0

Manufacturer

Your Local Agent



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The world's best self-cleaning filter
BALEEN

protecting the world's most valuable
asset's



Baleen Filters
The Future in Micro-Screening

An Innovation in
Micro-Screening Technology
www.baleen.com

Baleen Filters manufacture, supply and service an internationally patented, and 'state-of-the-art' self-cleaning filter technology of universal acclaim.

With a product range of the same name, Baleen offers Best Practice application from grey-water through to trade wastewater streams, to enable the end-user to recover traditionally troublesome constituents from virtually any water treatment stage.



"The Baleen filter system has provided us with the solution we were looking for – A low maintenance, self cleaning system with very low operating costs. Baleen has complimented what was already in place and has allowed us to reduce our wastewater loads considerably."

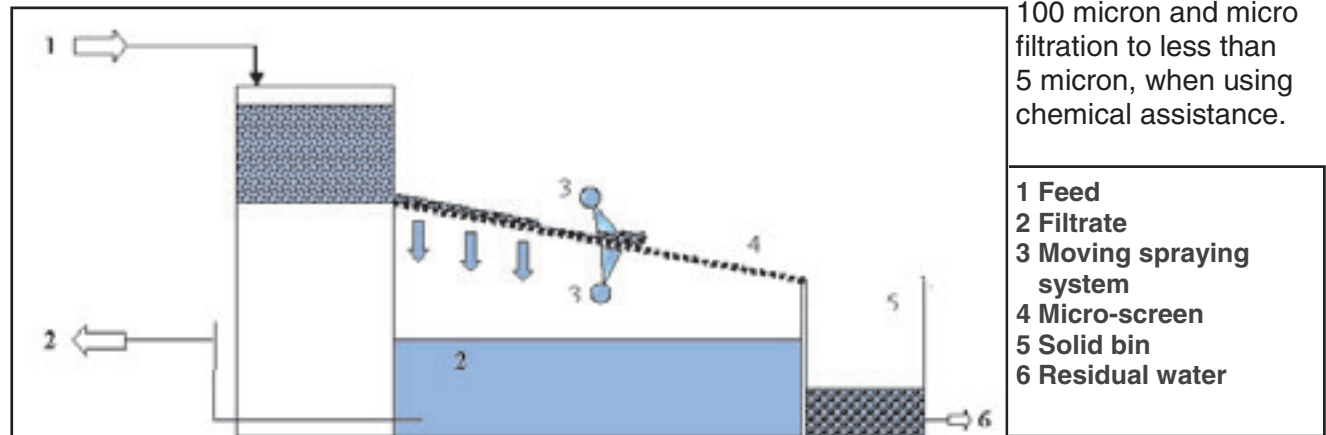
...Andrew Westlake, Operations Manager
Midfield Meats, Victoria, Australia.

PROCESS PRINCIPLE

The Baleen filter technology is based on a simple yet ingenious 'double act' of high pressure and low volume sprays. One of which dislodges material caught by the filter media, while the other sweeps away the material for collection.

As water flows through the filter substances, solids initially suspended in the water are left behind by the filtrate, but before they are allowed to accumulate and blind the screen media, the 'double act' sprays effect their removal from the filtering zone, to therefore sustain the filtering process.

The principles of operation rely upon the response of particle dynamics to fluid flow within a non pressurized open system. The continued reliability of filtering process is achieved by state of art process control to ensure trouble free coarse screening to 250 micron, micro screening to less



THE PRODUCT

MODEL-MATERIAL	CONTROL	Standard Peak Flow handling capability, subject to industry loading and application
B0505S-3XXSS	N or B or A	upto 35 m3/hr
05W05C-3XXSS	N or B or A	upto 35 m3/hr
B1010S-3XXSS	N or B or A	upto 125 m3/hr
10W10C-3XXSS	N or B or A	upto 125 m3/hr
B2015S-3XXSS	N or B or A	upto 400 m3/hr
20W15C-3XXSS	N or B or A	upto 400 m3/hr

The 'BxxxxS' model is the basic screening unit, presented in a 'tank-mountable' or 'user-install' format,

The 'xxWxxC' model is a fully enclosed screening unit, presented in a 'ready to install' unit suited to in-process or harsh environs.

OPTIONS	DETAIL
3XX	304 grade or 316 grade stainless steel
N	Standard control features without utility control
B	Basic Pump Control Unit included
A	Advanced Pump Control Unit included

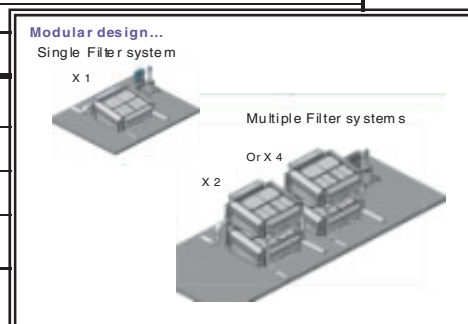
There are three filter control options available;

the standard onboard '-N' option which requires the user to provide all utility requirements to required specifications;

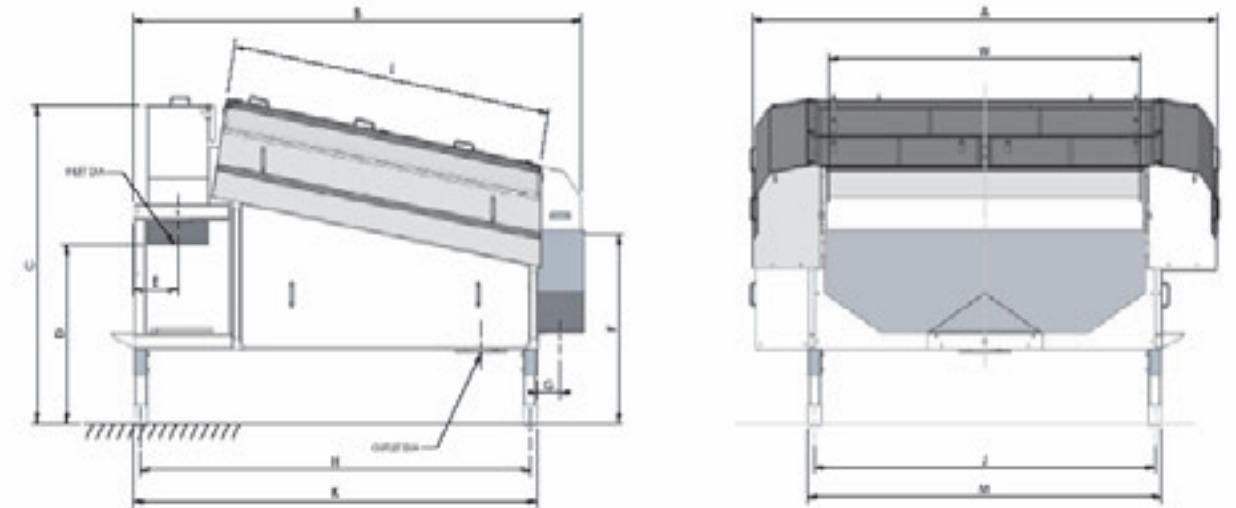
the General '-B' option which includes a Pump Control Unit with individual utility control/monitoring features; and

the advanced '-A' multi-unit option with extended control/monitoring features including remote access features

FURTHER OPTIONS	
SOLIDS SKIP	MIST SUPPRESSION COVER
SOLIDS SKIP LINER	SKIP DEWATERING UNIT
PRE-SCREEN DEVICE	REPLACEMENT SCREENS AND SPARE PARTS
SERVICE CONTRACT	CHEMICALLY ASSISTED FILTRATION MODULES



Filter Unit Dimensions



Baleen Filter Unit Dimensions

Unit Series	A	B	C	D	E	F	G	H	I	J	K	L	M	W
B0505S	1146	1866.5	630.5	174	197.5	112	-	1338	-	684	1468	1055	724	500
05W05C	1462	1939	1284	826	197.5	794.5	155	1238	-	584	1378	1426	624	500
B1010S	1631	2208	790.5	334	197.5	213	92.5	1722	-	1210	1852	1560	250	1000
10W10C	1906	2277	1370.5	914	197.5	780	106	1623	-	1110	TA	1880	1148	1000
B2015S	2991	2882	969	229	285	292.5	-	906	-	2330	2596	2045	2380	2000
20W15C	2991	2882	1694	954	285	1006	150	2506	-	2190	2594	2045	2278	2000

Pumpbase Model	A	B	C	D	E	F	G	H	I	J
Basic	1300	953	1310	1779	817	882	870	1020	1180	858
Advanced	1300	953	1310	1143	817	882	870	1020	1180	858

Pump-base Dimensions – Pump Control Unit

