

PRODUCT DATA SHEET

BELT FILTER (BF)

water | wastewater | sewage



OVERVIEW

The Belt Filter mechanically filters solids from wastewater effectively and efficiently for a wide range of applications. The Belt Filter assembly consists of the belt chassis installed in a polypropylene tank mounted on a stainless steel support frame with castor wheels.

The filter mesh of the belt is available from 40 µm to 5,000 µm and is selected based on filtering requirements. The belt is woven with high quality polyester fibres with different patterns and mesh sizes which determine the filtering efficiency and flow capacity.

The solids removal efficacy of the Belt Filter can be enhanced by adding a coagulant upstream, making it possible to filter out finer solids. As standard all Belt Filters are fitted with a static scraper to remove solids from the belt and a spray bar to wash out remaining particles lodged in the belt mesh. For high solids loading applications, an additional mechanical rotary scraper and additional washing system are available as options.



APPLICATIONS

- Municipal: effluent polishing, sludge thickening
- Food processing wastewater: e.g. dairies, abattoirs, breweries, fruit & veg processing
- Aquaculture: primary filtration, sludge thickening/dewatering
- Waste recycling water: primary filtration, sludge handling

ADVANTAGES

- Low capital and operating costs
- Long service life
- Compact & modular design
- Simple installation
- Simple retrofit into existing process trains

STANDARD SPECIFICATIONS

Parameter	Units	Belt Filter Model			
		2.1C	2.1D	3.6D	3.6M
Max capacity for mechanical filtration	m³/h	6 - 100	10 - 170	20 - 400	60 - 800
Max capacity for chemical / mechanical filtration		1 - 2	2 - 4	3 - 6	6 - 12
Available belt filter mesh openings	µm	40 - 5,000			60 - 5,000
Belt chassis length	mm	2,100		3,600	
Belt chassis width		300	500	1,000	
Built-in width		410	610	1,110	
Belt filter assembly length (approx.)		2,567	2,773	4,263	4,764
Belt filter assembly width (approx.)		530	776	1,276	
Belt filter assembly height (approx)		1,305	1,525	1,688	
Belt drive motor	kW	0.18	0.25		
Mechanical rotary scraper drive motor (option)		0.12			
Belt speed range	m/s	0.2 - 0.7			
Tank inlet connection, flanged	mm	DN80		DN125	DN150
Tank outlet conneciton, flanged		2x DN80	2x DN100	2x DN125	2x DN150
Washwater discharge connection, flanged		DN80			
Washwater supply connection	inch	¾			
Minimum washwater requirement (min 4 bar)	L/min	30			
Empty weight Belt Filter assembly (approx.)	kg	100	120	200	310

STANDARD INCLUSIONS + OPTIONS

✓ = Standard Supply, o = Optional Supply, - = Not Applicable

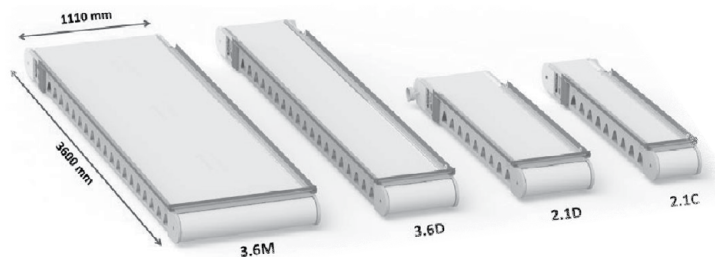
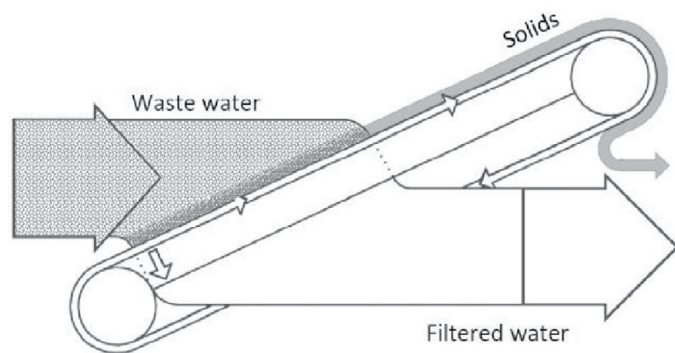
Equipment		Belt Filter Model			
		2.1C	2.1D	3.6D	3.6M
Belt filter assembly including belt chassis installed in polypropylene tank mounted on a stainless steel support frame with castor wheels			✓		
Belt Filter internal steel components and assembly support frame	304 stainless steel		✓		
	316 stainless steel		o		
Mechanical rotary scraper			o		
Additional washwater spray bar			o		



Instrumentation & Controls		Standard	Option
Control panel for Belt Filter ONLY <small>see note 1</small>	Powder coated metal enclosure	✓	-
	316SS enclosure	-	o
Control panel for Belt Filter and optional ancillary equipment	Powder coated metal enclosure	-	o
	316SS enclosure	-	o
VSD for drive motor in control panel		✓	-
Level measurement (pressure transducer) for tank inlet, 0-100mbar, 4-20mA, 24VDC		✓	-
Solenoid valve for washwater, 24VDC (single washing spray bar)		✓	-
Solenoid valve for washwater, 24VDC (additional washing spray bar)		-	o

*1 Control Panel suitable for wall mounting, supplied loose, compliant to AS/NZS 3000, IP56, includes PLC & HMI touch screen (mounted on inner door), includes VSD for Belt Filter motor, solenoid(s) & timer(s) for washwater operation, continuous level measurement w/ PID control for belt speed, on/off control for optional Rotary Scraper motor

*2 Includes all items in 1, plus VSD for optional Feed Pump with PID control, and on/off control for optional Chemical Dosing Pump & optional blending tank Mixer



MODEL SELECTION

2.1C	Capacity - 6 - 100 m³/h
2.1D	Capacity - 10 - 170 m³/h
3.6D	Capacity - 20 - 400 m³/h
3.6M	Capacity - 60 - 800 m³/h
	C1 Control Panel – BF only, power coated enclosure
	C2 Control Panel – BF only, 316SS enclosure
	C3 Control Panel – BF & ancillary equipment, power coated enclosure
	C4 Control Panel – BF & ancillary equipment, 316SS enclosure
	CX Control Panel – without
	4 BF & support frame materials 304SS
	6 BF & support frame materials 316SS
	X Mechanical Rotary Scraper – without
	S Mechanical Rotary Scraper – included
	X Additional Washing Spray Bar – without
	B Additional Washing Spray Bar – included
	X Feed Pump – without
	F Feed Pump – included
	X Chemical Metering Pump – without
	P Chemical Metering Pump – included
	X Blending Tank Mixer – without
	M Blending Tank Mixer – included
	X Specification – standard
	C Specification – custom
BF	---

NEED A QUOTE?

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