

PRODUCT DATA SHEET

Rotary Drum Screen (FTR)

water | wastewater | sewage



OVERVIEW

The Rotary Drum Screen model FTR removes solids from industrial wastewater streams. The Rotary Drum Screen consists of a rotating filtering or screening drum that is fitted in a tank.

Wastewater entering the tank through the inlet port contacts the external surface of the rotating drum via a specially designed flow distributor. Screened water flows through the drum screen surface to the outlet port. The captured solids or screenings are removed from the external surface of the drum by a fixed scraper. The screen element is kept clean by a washing system fitted inside the drum.

As an option, the Rotary Drum Screen can be supplied with an integrated Screw Compactor (SCC) to provide for washing and dewatering the captured screenings.



ADVANTAGES

- Low maintenance & investment cost
- Compact size
- Simple to operate and maintain
- Self-cleaning drum

MANUFACTURING FEATURES

- Capacity from 3 to 1,700 m³/h
- Screen options:
 - Wedge-wire 0.25 - 2.50 mm
 - Rounded holes 1.50 - 3.00 mm

STANDARD SPECIFICATIONS

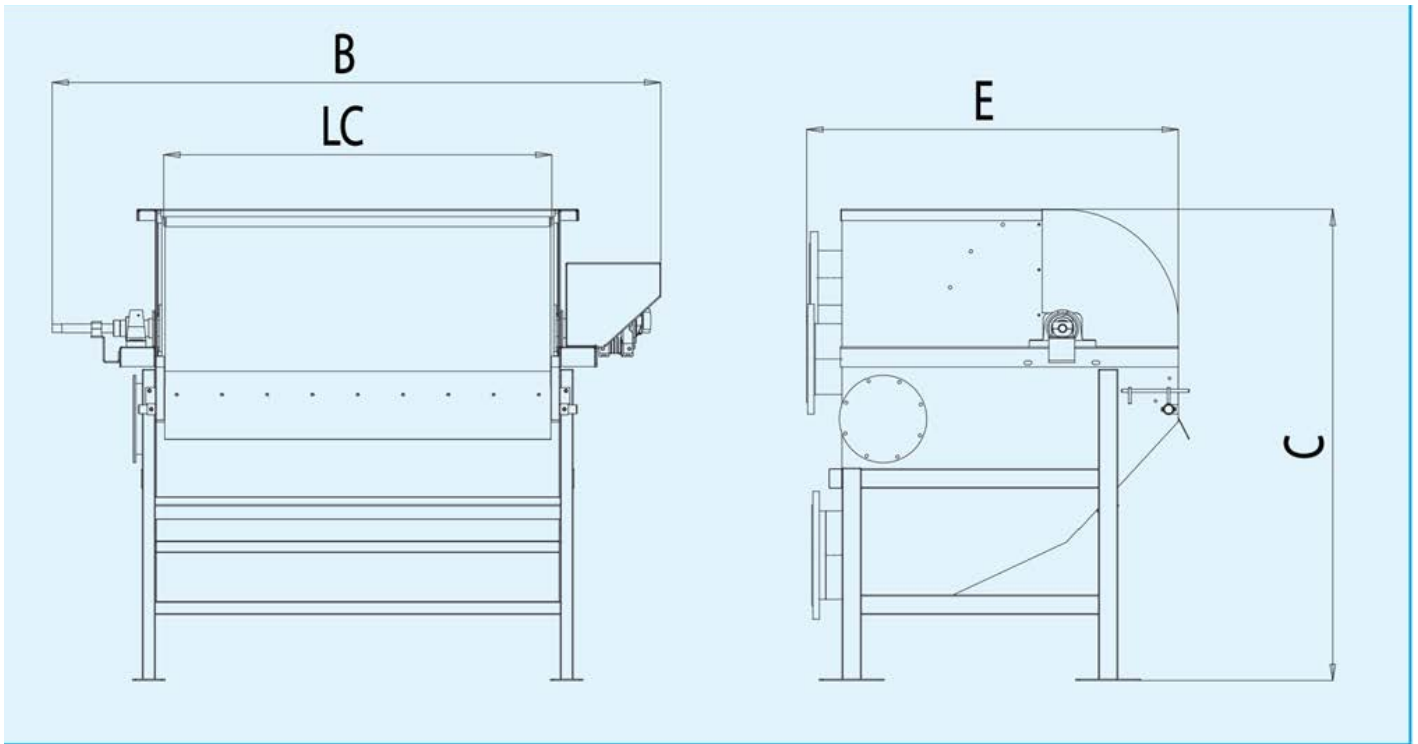
Parameter		Unit	FTR 04mini	FTR 08mini	FTR 30	FTR 40	FTR 60	FTR 90	FTR 120	FTR 140	FTR 150	FTR 180	FTR 200	FTR 3000	
Capacity*1	Wedge wire (mm)	0.25	3	6	14	19	29	44	58	68	73	88	98	234	
		0.5	7	14	31	41	63	95	128	149	160	192	214	513	
		0.75	10	19	44	59	90	136	182	213	228	274	305	731	
		1	12	24	54	73	112	169	226	264	284	341	379	908	
		1.25	15	29	66	90	137	207	277	324	347	417	464	1,111	
		1.5	17	34	76	103	156	236	317	370	397	477	531	1,271	
		2	19	38	87	117	179	270	362	423	454	545	607	1,453	
		2.5	22	44	99	134	203	308	412	482	517	621	691	1,655	
		Rounded holes (mm)	Ø1.50	5	10	23	30	46	70	94	110	118	141	157	236
			Ø2.00	6	12	27	36	55	83	112	131	140	168	187	282
Ø2.50	9		19	42	57	86	130	175	204	219	263	293	440		
Dimensions*2	Drum diameter Ø		300	300	628	628	628	628	628	628	628	628	628	914	
	LC – drum length		415	800	300	400	600	900	1,200	1,400	1,500	1,800	2,000	3,000	
	B – overall length		818	1,208	894	1,005	1,200	1,492	1,790	1,987	2,086	2,390	2,587	3,800	
	C – overall height		700	700	1,362	1,362	1,455	1,455	1,455	1,455	1,455	1,498	1,498	2,132	
	E – overall width		763	800	1,210	1,210	1,210	1,210	1,210	1,210	1,210	1,210	1,210	1,550	
Inlet flange size*3			80	80	80	100	100	200	200	200	200	200	300	2x 350	
Outlet flange size*3			100	100	100	200	200	250	250	250	250	250	400	2x 400	
Overflow flange size*3			65	80	100	100	150	150	200	200	200	300	300	2x 350	
Washwater connection*2,4		Inch	0.5	0.5	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.5	
Installed motor power*2		kW	0.18	0.18	0.18	0.25	0.37	0.37	0.55	0.55	0.55	0.55	0.55	1.1	
Empty weight*2		kg	95	125	180	245	285	325	365	490	505	585	625	1,350	
Washwater requirement*2,4		L/min	23	39	23	23	31	39	55	70	70	86	101	148	

*1 Based on wastewater containing 200 mg/L influent TSS.

*2 For FTR only, not including optional integrated Screw Compactor SCC. Consult MAK Water for details for FTR with optional integrated SCC.

*3 Flanges are lap joint type, 15 mm thick, according to AS4087 PN16.

*4 Washwater at 3 bar pressure.



STANDARD INCLUSIONS + OPTIONS

Equipment		Standard Supply	Optional Supply	
Rotary Drum Screen	Screen drum cleaned by adjustable brass scraper blade	✓	-	
	Adjustable overflow system	✓	-	
	Lifting eyebolts	✓	-	
	Washing bar with bolted nozzles for screen cleaning	✓	-	
	Cover over drum	✓	-	
	Motor	TEFC, IEC, IP55, class F, 415V, 50Hz, 3ph	✓	-
	Gearbox	Brand: Bonfiglioli, Type: worm	✓	-
Machine carpentry, rotating drum, inlet, outlet & overflow flanges, and optional discharge chute and optional Screw Compactor	SS304, bolts A2 (SS304)	✓	-	
	SS316L, bolts A4 (SS316)	-	✓	
Discharge chute (optional)	Standard length (length up to 0.5x dimension C)	✓	-	
	Custom length (client to specify)	-	✓	
Integrated Screw Compactor (SCC) ¹ (optional)	With shaftless screw, 1.5 kW motor, Nord parallel shaft gearbox, two ½" washwater connections with manual valves, PE pipe for return of liquid from drainage & compaction modules, watertight section between FTR and SCC	Screw in HCS	-	✓
		Screw in SS304	-	✓
		Screw in SS316	-	✓
Surface treatments	Stainless steel parts: stripping with acid solution, passivation with glass particles, final surfaces cleaning with anti-dust oil. Carbon steel parts: sandblasting SA 2.5 for external anti-rust paint RAL 5015	✓	-	

¹ Integrated Screw Compactor not available for FTR-04mini and FTR-08mini

Instrumentation & Controls	Standard Supply	Optional Supply
Screen tank level sensor, 3-prong conductive probe	✓	-
Solenoid valve kit(s) for washing system(s), 24VDC ¹	-	✓
Control panel, compliant with AS/NZS 3000, 316SS enclosure with inner door, IP56 for outdoor installation, touch screen interface, supplied loose, field wiring between Control Panel and equipment by others	-	✓

¹ One (1) solenoid kit for FTR only, three (3) solenoid kits for FTR with integrated SCC

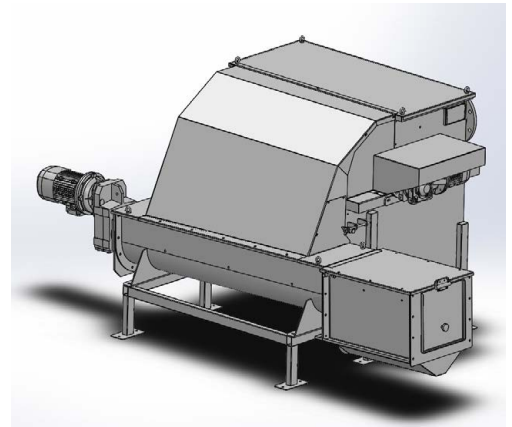
MODEL SELECTION

- 04mini** Capacity – up to 22 m³/h
- 08mini** Capacity – up to 44 m³/h
- 30** Capacity – up to 99 m³/h
- 40** Capacity – up to 134 m³/h
- 60** Capacity – up to 203 m³/h
- 90** Capacity – up to 308 m³/h
- 120** Capacity - up to 412m³/h
- 140** Capacity - up to 482 m³/h
- 150** Capacity – up to 517 m³/h
- 180** Capacity – up to 621 m³/h
- 200** Capacity – up to 691 m³/h
- 3000** Capacity – up to 1,655 m³/h



Typical Rotary Drum Screen installation

- 4** Machine carpentry, rotating drum, flanges (and optional Discharge Chute & integrated Screw Compactor) in SS304, bolts A2 (standard)
- 6** Machine carpentry, rotating drum, flanges (and optional Discharge Chute & integrated Screw Compactor) in SS316L, bolts A4
- W** Wedge-wire screen element aperture 0.25, 0.50, 0.75, 1.00, 1.25, 1.5, 2.00 or 2.5 mm
- R** Rounded holes screen element custom aperture Ø1.50, Ø2.00 or Ø2.50 mm
- X** Discharge chute, without (standard)
- D** Included
 - X** Integrated Screw Compactor, without (standard)
 - H** Integrated Screw Compactor, with screw in HCS
 - 4** Integrated Screw Compactor, with screw in SS304
 - 6** Integrated Screw Compactor, with screw in SS316
 - X** Solenoid valve kits for all washing systems, without (standard)
 - S** Solenoid valve kits for all washing systems
 - X** Control panel, without (standard)
 - C** Control panel, included
 - X** Specification, standard
 - C** Specification, custom



Rotary Drum Screen with integrated Screw Compactor

FTR - - - - -

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