

# FTR with grinder



FTR 101



FTR 150-300



FTR 400-1000 T



FTR 400-1000/P T

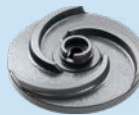
Drainage and waste water pumps equipped with open impeller and grinder system able to shred sewage with suspended solids and prevent the pump from clogging. Best for emptying of septic tanks and residential sumps as well as for rain water systems and for draining of flooded areas where seamless operation is required. The quick coupling feet DN50 and DN65 is available for flanged pumps.

FTR 101



Grey water

FTR



Black water

## Construction features

**Pump body** cast iron

**Shell, motor cover** stainless steel (FTR 101)

**Impeller** brass (FTR 101)  
cast iron (FTR)

**Mechanical seal** double seal with oil barrier; silicon carbide on pump side (FTR, FTR 101)  
sealing ring on motor side (FTR 101)  
ceramic-graphite on motor side (FTR)

**Motor shaft** stainless steel AISI 430 (FTR 101)  
stainless steel AISI 304 (FTR)

**Max submergence** max 5 m (FTR 101)  
max 20 m (FTR)

**Liquid temperature** 0 - 40 °C

**Cable** H05 RN8F, 10 m



**Grinder** treated stainless steel

**Bolts** A2 stainless steel (FTR)

**Foot support** galvanized iron (FTR)

**Gaskets** NBR rubber (FTR)

## Motor

3- 3x400V-50Hz (FTR 101)  
3- 230/400V-50Hz P ≤ 4kW (FTR)  
3- 400/690V-50Hz P > 4kW (FTR)

**2 Poles induction motor**

1- 1x230V-50Hz  
FTR 101: thermal protection and run capacitor included  
Other models: run capacitor (35µF for 1,5HP models, 50µF for 2HP model) + start capacitor (80µF with disjuntor) required

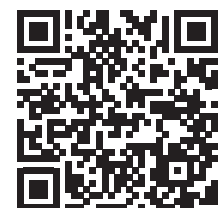
**Insulation class** F

**Protection degree** IPX8

TYPE	LOTS			
	TRUCK		CONTAINER	
	PALLET (cm)	N° pumps	PALLET (cm)	N° pumps
FTR 150-300 T	85×110×145	18	85×110×190	27
FTR 400-550 T	85×110×170	12	85×110×170	12
FTR 1000 T	100×120×190	12	100×120×190	12



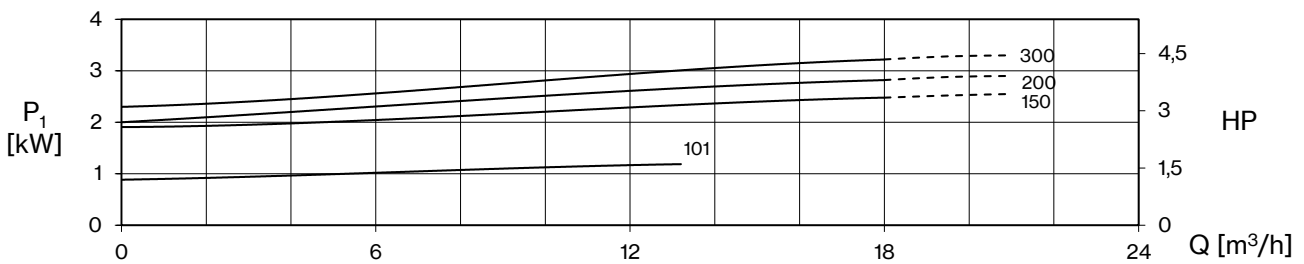
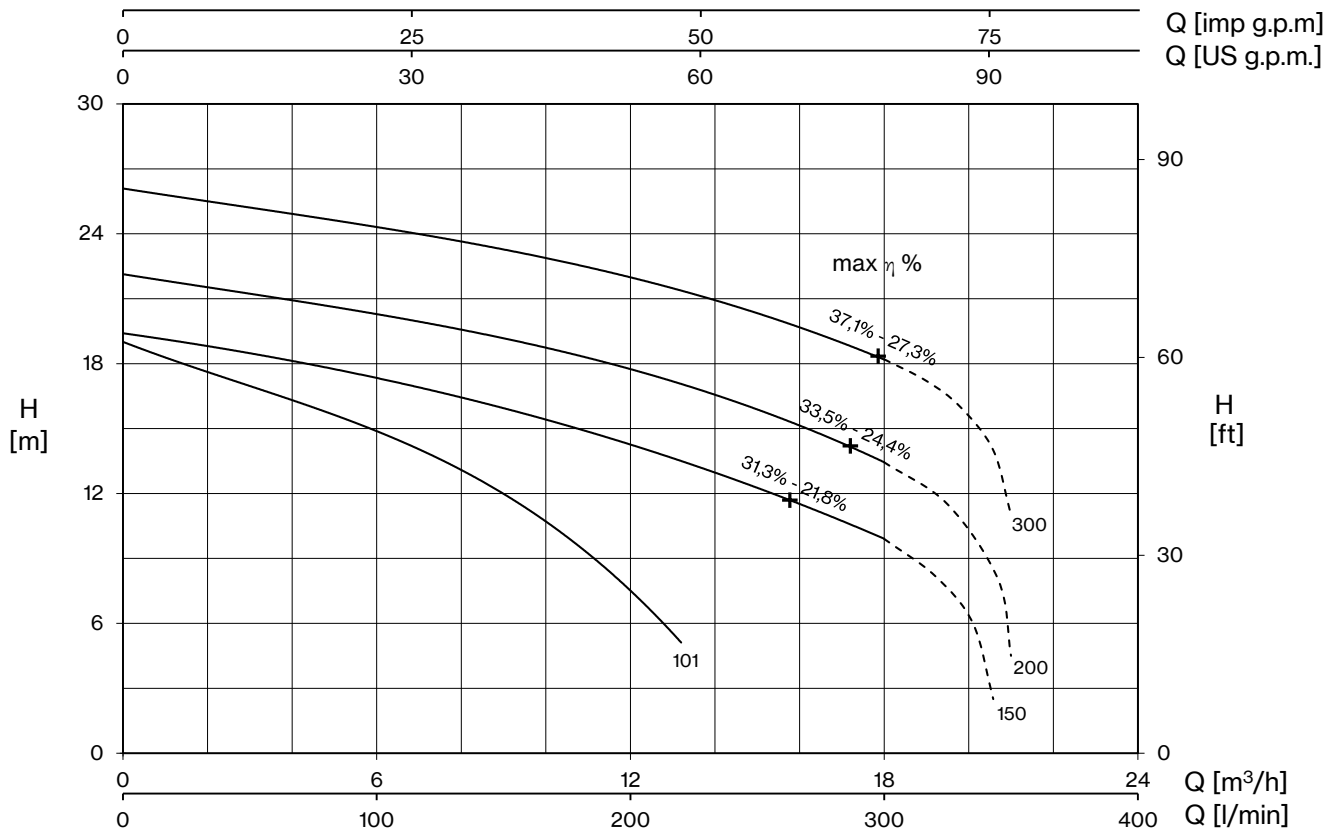
FTR 101



FTR



# FTR with grinder



TYPE		AMPERE				
1~	3~	230 V 50 Hz	3x230 V 50 Hz (*)	3x400 V 50 Hz	230/400 V 50 Hz λ/Δ (*)	400/690 V 50 Hz λ/Δ
FTR 150	FTR 150 T	11,5	7,6	4,4	-	-
FTR 200	FTR 200 T	13,6	8,8	5,1	-	-
-	FTR 300 T	-	10,0	5,8	-	-

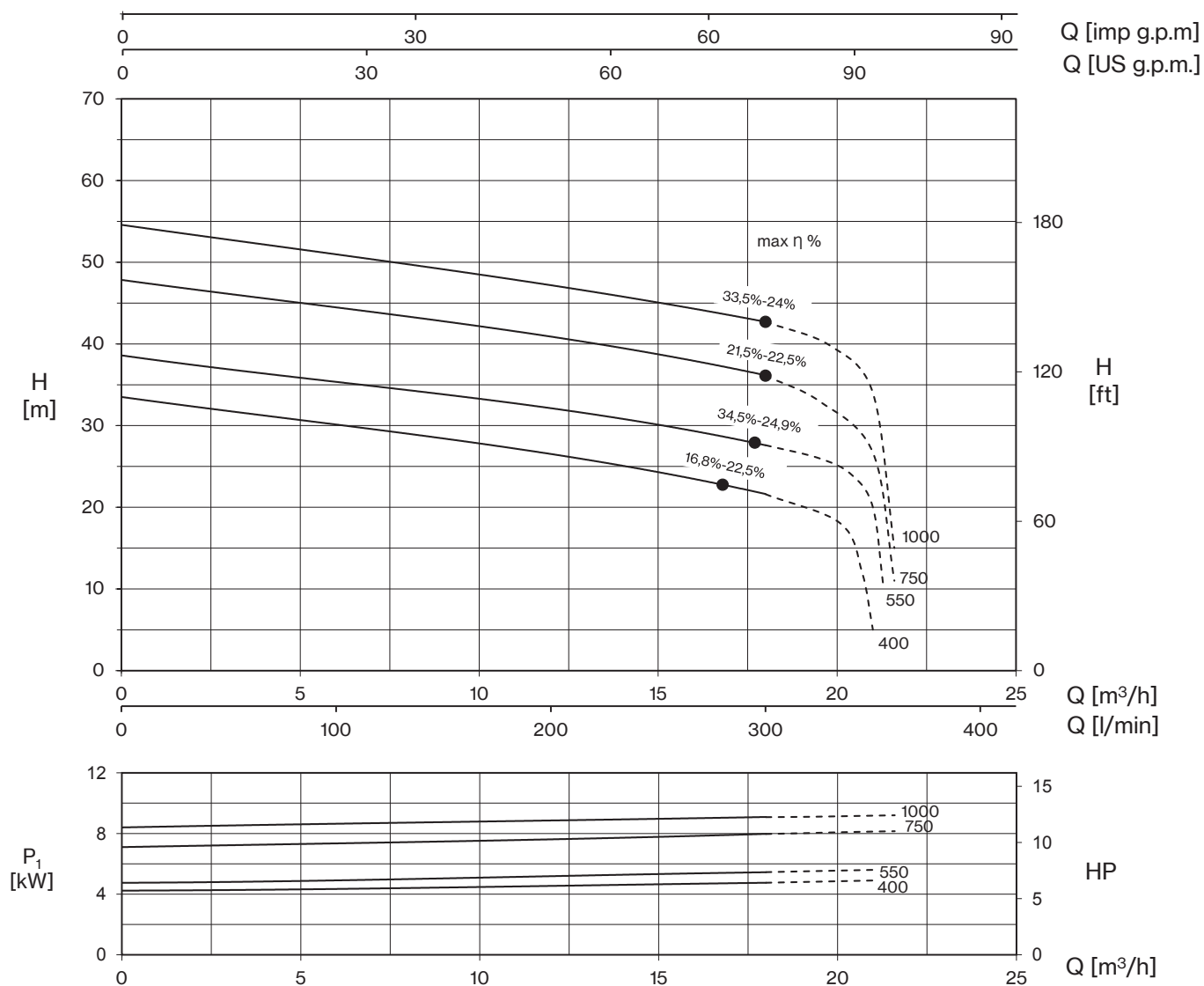
+ max η %

max hydraulic efficiency and respective total efficiency

(\*) no standard execution

TYPE		W	P2		P1 (kW)		AMPERE		Q (m³/h - l/min)							
1~	3~		HP	kW	1~	3~	1~	3~	0	3	6	9	12	13,2	15	18
							1x230V	3x400V	0	50	100	150	200	220	250	300
FTR 101 (G)	FTR 101	1200	-	-	-	-	5,3	2,2	19,0	17,1	14,8	11,9	7,8	4,9		
FTR 150	FTR 150	-	1,5	1,1	2,6	2,5	-	-	19,4	18,5	17,3	16,0	14,2	13,5	12,3	9,9
FTR 200	FTR 200	-	2	1,1	3,0	2,8	-	-	22,1	21,3	20,3	19,1	17,7	17,1	16,0	13,4
-	FTR 300	-	3	2,2	-	3,2	-	-	26,1	25,2	24,3	23,3	22,0	21,4	20,3	18,2

# FTR with grinder



TYPE	AMPERE			
	3x230 V 50 Hz (*)	3x400 V 50 Hz	230/400 V 50 Hz λ / Δ (*)	400/690 V 50 Hz λ / Δ
FTR 400 T	13,0	7,5	-	-
FTR 550 T	15,9	9,2	-	-
FTR 750 T	-	13,9	24	13,9
FTR 1000 T	-	15,5	26,8	15,5

**+ max η %**

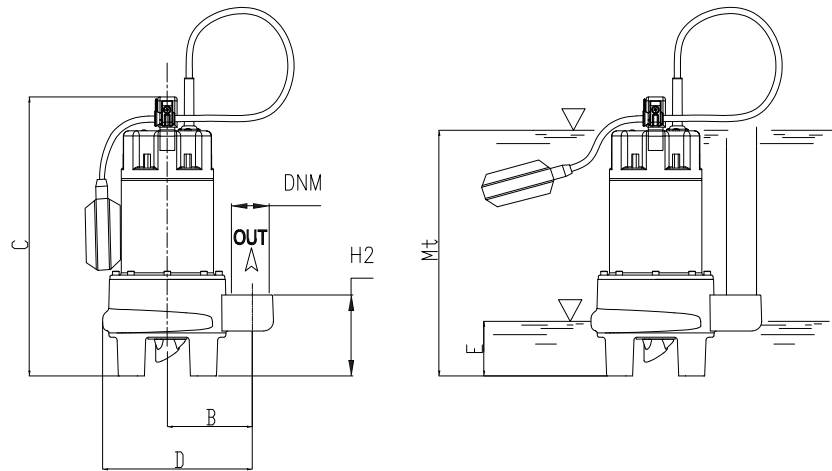
max hydraulic efficiency and respective total efficiency



(\*) no standard execution

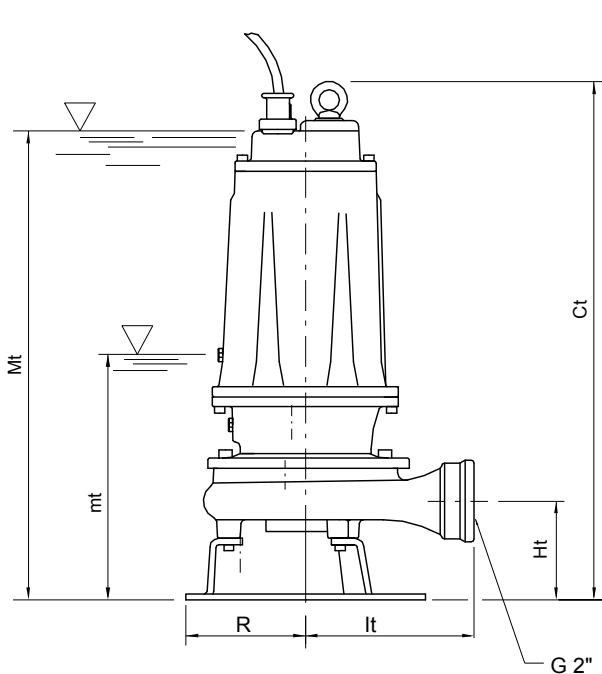
TYPE	P2		P1 (kW)	Q (m³/h - l/min)									
				0	3	6	9	12	15	18	21	21,6	
	HP	kW	3-	0	50	100	150	200	250	300	350	360	
	H (m)												
FTR 400 T	4	3	4,5	33,5	31,8	30,1	28,5	26,4	24,4	21,6			
FTR 550 T	5,5	4	5,3	38,6	36,9	35,3	33,9	32,1	30,1	27,6			
FTR 750 T	7,5	5,5	8,0	47,8	46,2	44,5	42,7	40,8	38,9	36,1	26,7	11,0	
FTR 1000 T	10	7,5	9,1	54,6	52,7	51,0	49,2	47,1	45,1	42,7	34,0	15,0	

## FTR with grinder


E: maximum emptying level  
Mt: minimum liquid level for continuous duty



TYPE	DIMENSIONS (mm)										
	B	C	D	E	H2	Mt	DNM	I	L	M	
FTR 101	105	359	218,5	70	104,5	313	1" 1/2 G	260	185	450	16,5



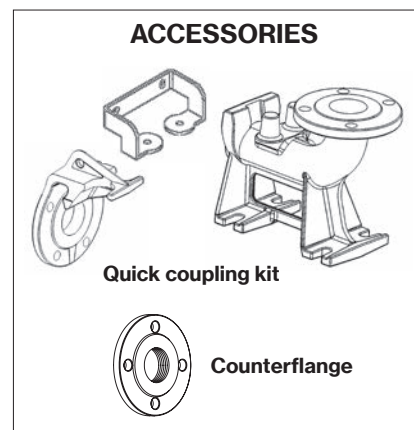
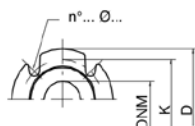
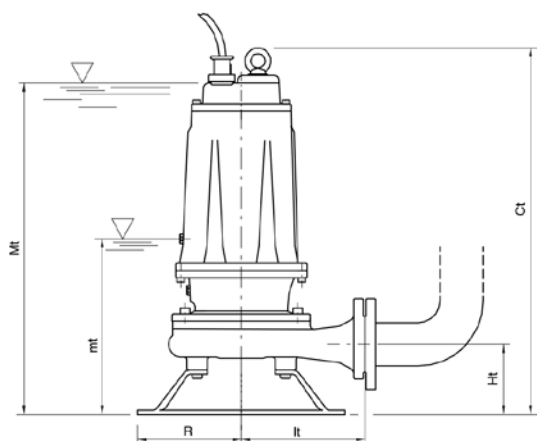
mt/mf: minimum working level  
Mt/Mf: minimum submersion level for continuous duty

TYPE	DIMENSIONS (mm)							
	Ct	Ht	R	lt	mt	Mt	DNM	
FTR 150-FTRT 150	513	102	117	174	205	475	2" G	38
FTR 200-FTRT 200	513	102	117	174	205	475	2" G	38,5
FTRT 300	513	102	117	174	205	475	2" G	38

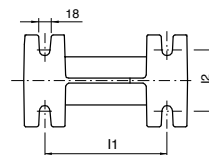
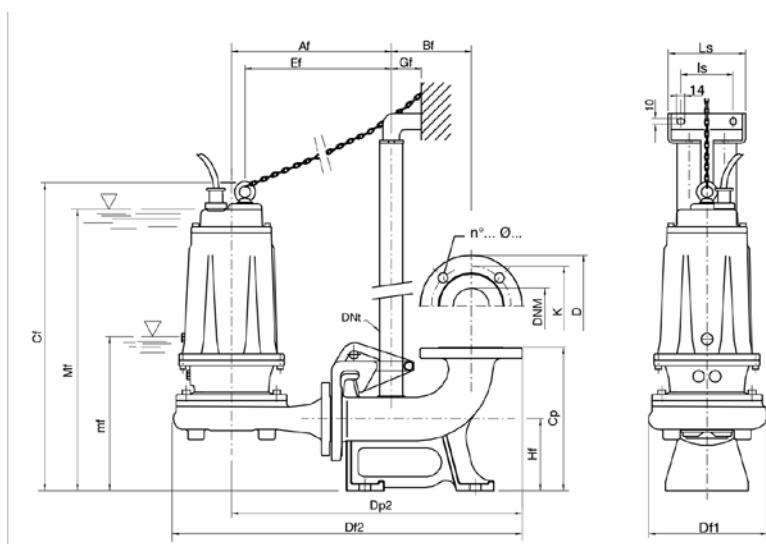
TYPE	PROTECTION		1 PUMP CONTROL PANEL			2 PUMPS CONTROL PANEL		
	1 x 230 V	3 x 400 V	1 x 230 V	3 x 400 V	400 / 690 V	1 x 230 V	3 x 400 V	400 / 690 V
FTR 150	PMLD 15/35-13	PT 20-30-40/4.3-6.8	EQSM + 35µF + 80µF*	EQSMT 10		EQ2SM + 2×35µF + 2×80µF*	EQ2SMT 10	
FTR 200	PMLD 20/50-15	PT 20-30-40/4.3-6.8	EQSM + 50µF + 80µF*	EQSMT 10		EQ2SM + 2×50µF + 2×80µF*	EQ2SMT 10	
FTR 300 T		PT 20-30-40/4.3-6.8		EQSMT 10			EQ2SMT 10	
FTR 400 T		PT 40-50/5.7-9.1		EQSMT 10			EQ2SMT 10	
FTR 550 T		PT 55-75/8.6-13.5		EQSMT 10			EQ2SMT 10	
FTR 750 T		PT 100/12.5-16.5		EQSMT 10	QST 7		EQ2SMT 10	Q2ST 7
FTR 1000 T		PT 125-150/16-21		EQSMT 10	QST 10		EQ2SMT 10	Q2ST 10

\*start capacitor with disjuntor

## FTR with grinder



TYPE	DIMENSIONS (mm)							Kg
	Ct	Ht	R	lt	mt	Mt	DNM	
FTR 400 T	595	112	160	190	265	550	50	62,5
FTR 550 T	595	112	160	190	265	550	50	65,5
FTR 750 T	680	160	180	250	280	630	65	91,5
FTR 1000 T	680	160	180	250	280	630	65	94,5



mt/mf: minimum working level  
Mt/Mf: minimum submersion level for continuous duty

TYPE	DIMENSIONS (mm)																	
	Af	Bf	Cf	Cp	Df1	Df2	Dp2	DNt	Ef	Gf	Hf	I1	I2	Is	Ls	mf	Mf	DNM
FTR 400 T/P	300	145	614	260	237	654	538	1" ¼	269	55	130	200	100	95	140	290	566	50
FTR 550 T/P	300	145	614	260	237	654	538	1" ¼	269	55	130	200	100	95	140	290	566	50
FTR 750 T/P	331	145	656	260	279	710	569	1" ¼	297	55	130	200	100	95	140	290	600	65
FTR 1000 T/P	331	145	656	260	279	710	569	1" ¼	297	55	130	250	100	95	140	290	600	65

Flange UNI PN 10 (mm)			
DNM	K	D	n°... Ø...
50	125	165	4... 18...
65	145	185	4... 18...