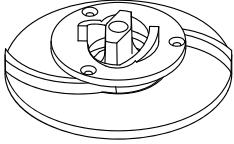


<b>HYDROPOMPE</b>	<b>IMPELLER WITH GRINDER UNIT</b> 	<b>50 Hz</b>
<b>FTR SERIES</b>		<b>2 POLE</b>
<b>165M-165T-215M-215T-315T</b>		

**USE**

These series of grinder pumps are particularly used in civil and industrial sewage plants. They have been designed to pump the liquid at high head with very low capacity. The cutter unit, in a special hard stainless steel, cuts into small pieces threadlike materials contained in the liquids. As the risk of clogging is avoided small diameter pipes are used. These pumps can be used to lift the sewage of blocks of flats and villas, small isolated areas far from the sewer systems; the sewage of hotels and campsites, in the food and paper industry and in those particular situations where the installation is often expensive by using a gravity system.

**MATERIALS**

- Cover**  
Cast iron EN GJL 200 (UNI EN 1561)
- Motor housing**  
Cast iron EN GJL 200 (UNI EN 1561)
- Pump housing**  
Cast iron EN GJL 200 (UNI EN 1561)
- Supporting foot**  
Cast iron EN GJL 200 (UNI EN 1561)
- Impeller**  
Cast iron EN GJL 200 (UNI EN 1561)
- Mechanical seal motor side**  
215M-215T-315T Graphite/Steatite
- Mechanical seal pump side**  
Silicon Carbide/Silicon Carbide (SiC/SiC)
- Motor shaft**  
Stainless steel AISI 431
- Grinder**  
Hardened stainless steel
- Bolts and nuts**  
Stainless steel Grade A2
- Cable**  
10 meters type H07RN-F  
Single-phase with 4G1,5 mm<sup>2</sup> cable, capacitor box and SCHUKO (CEE 7/VII) plug  
Single-phase FTR215M with 4G2,5mm<sup>2</sup> cable, capacitor box and SCHUKO (CEE 7/VII) plug  
Three-phase with 4G1,5 mm<sup>2</sup> cable

**LIMITS TO USE**

- Max temperature of the liquid pumped**  
+40°C
- pH of the liquid pumped**  
6÷10
- Max immersion depth**  
20 m
- Liquid density**  
1,0 kg/dm<sup>3</sup>
- Min immersion depth for continuous service**  
165M-165T 373 mm  
215M-215T-315T 440 mm
- Max number starts/hour**  
20
- Acoustic pressure level issued**  
<70dB(A)

**MOTOR**

The electric motor is asynchronous with squirrel cage rotor in oil bath  
Class of insulation F  
Protection degree IP68  
2pole; 50Hz

Main voltage values and relative tolerance in relation to the rated voltage value:

**SINGLE-PHASE**  
230V ±6% FTR165M  
built-in overheating protection and float switch

**THREE-PHASE**  
230V ±10%  
400V ±10%

Other voltages on request.

**OTHER FEATURES ON REQUEST**

- Frequency 60 Hz (*see specific catalogue*)
- Other voltages
- With food grade white oil

**TECHNICAL DATA**

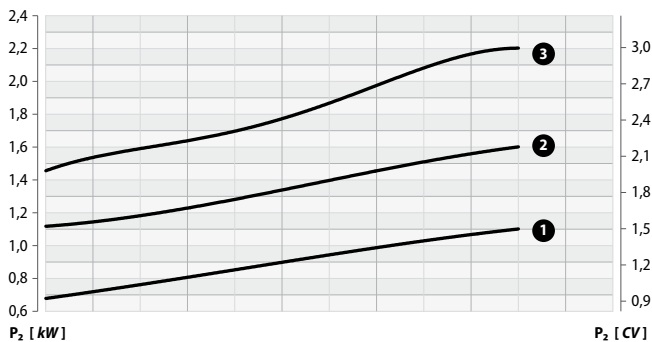
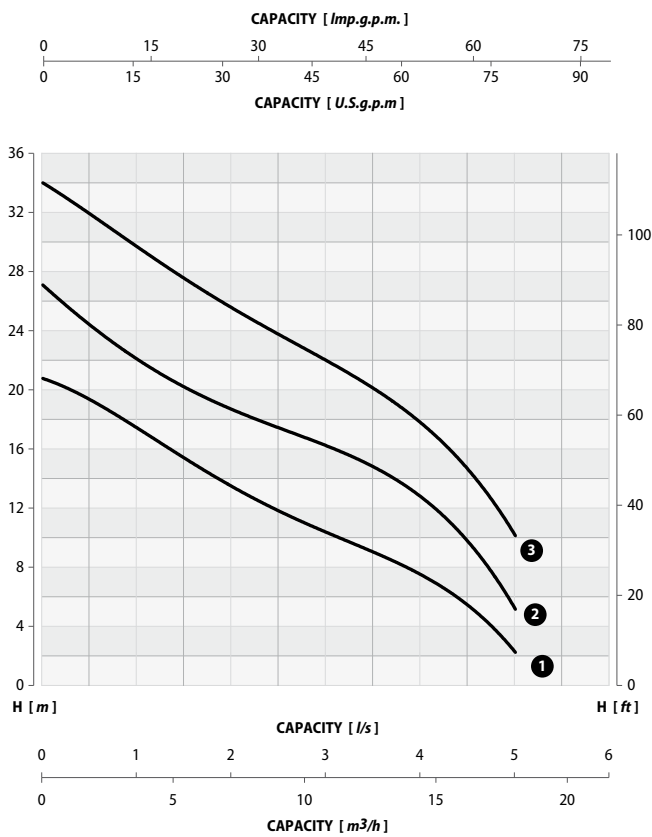
MODEL	P1 kW	P2		VOLTAGE V	CURRENT A	CAPACITOR		CABLE m	WEIGHT kg
		kW	CV			µF	V		
<b>165M</b>	1,4	1,1	1,5	230 (1~)	7,0	30	450	10	34
<b>165T</b>	1,4	1,1	1,5	230/400 (3~)	5,2/3,0	-	-	10	34
<b>215M</b>	2,3	1,6	2,1	230 (1~)	11,0	40	450	10	40
<b>215T</b>	2,3	1,6	2,1	230/400 (3~)	6,9/4,0	-	-	10	40
<b>315T</b>	3,1	2,2	3,0	230/400 (3~)	8,7/5,0	-	450	10	42

<b>FTR SERIES</b>	<b>165M-165T-215M-215T-315T</b>		<b>IMPELLER WITH GRINDER UNIT</b>	<b>50 Hz</b>
				<b>2 POLE</b>

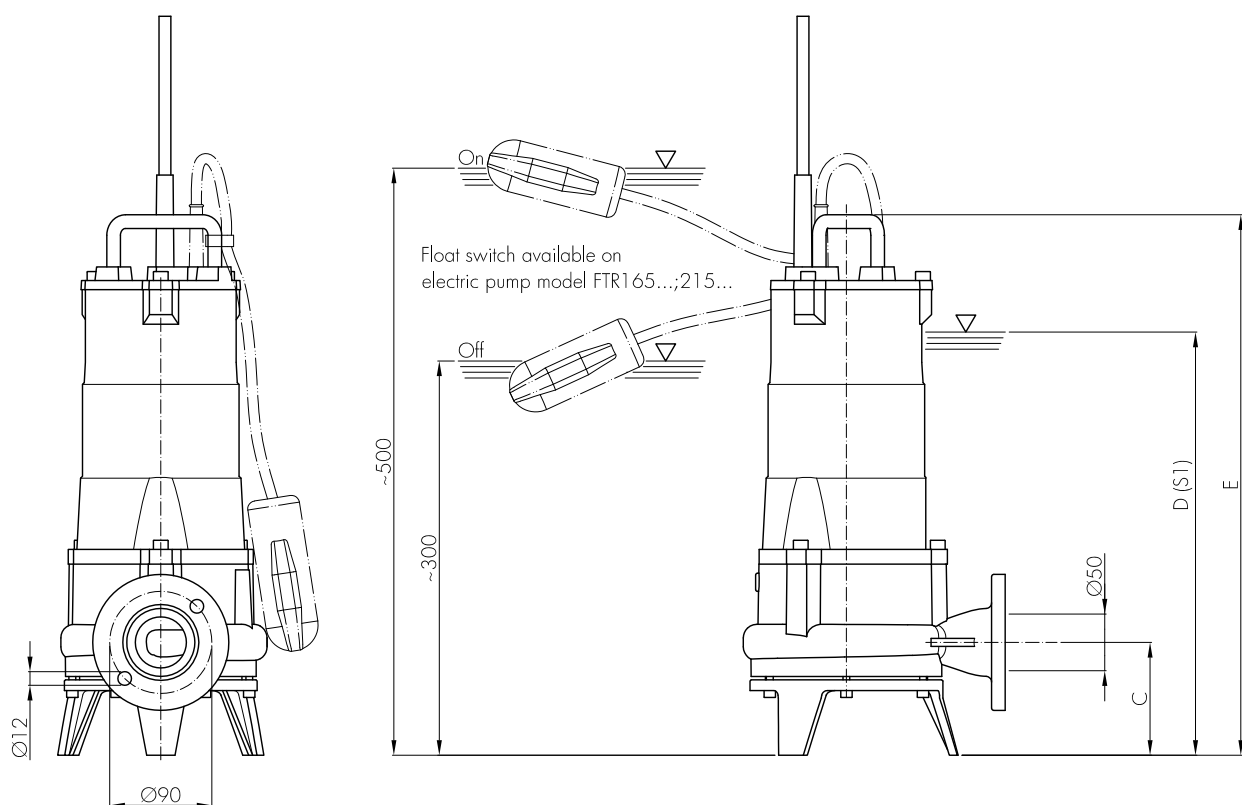
**PERFORMANCE RANGE**

CAPACITY												
<i>l/s</i>	0	0,5	1,0	1,5	2,0	2,5	3,0	3,5	4,0	4,5	5,0	
<i>m³/h</i>	0	1,8	3,6	5,4	7,2	9,0	10,8	12,6	14,4	16,2	18,0	
<i>l/min</i>	0	30	60	90	120	150	180	210	240	270	300	

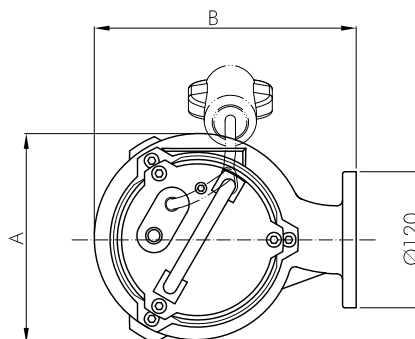
MODEL	CURVE N°	HEAD m											
		165M	1	21,0	19,0	17,0	15,8	14,0	12,0	9,5	8,8	7,8	5,8
165T	215M	2		27,0	25,0	21,0	20,5	19,0	18,0	15,5	14,5	13,0	10,0
215T	315T		3	34,0	32,0	29,5	27,5	25,7	23,8	22,0	20,0	17,5	15,0



Performance tolerance in according to UNI/ISO 9906 Grade 3B

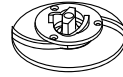
**FTR SERIES****165M-165T-215M-215T-315T****IMPELLER WITH GRINDER UNIT****50 Hz****2 POLE****INSTALLATION DIMENSIONS**

	A	B	C	D	E
165...	185	231	100	373	477
215...	220	276	110	440	550
315...					



# FTR SERIES

165M-165T-215M-215T-315T



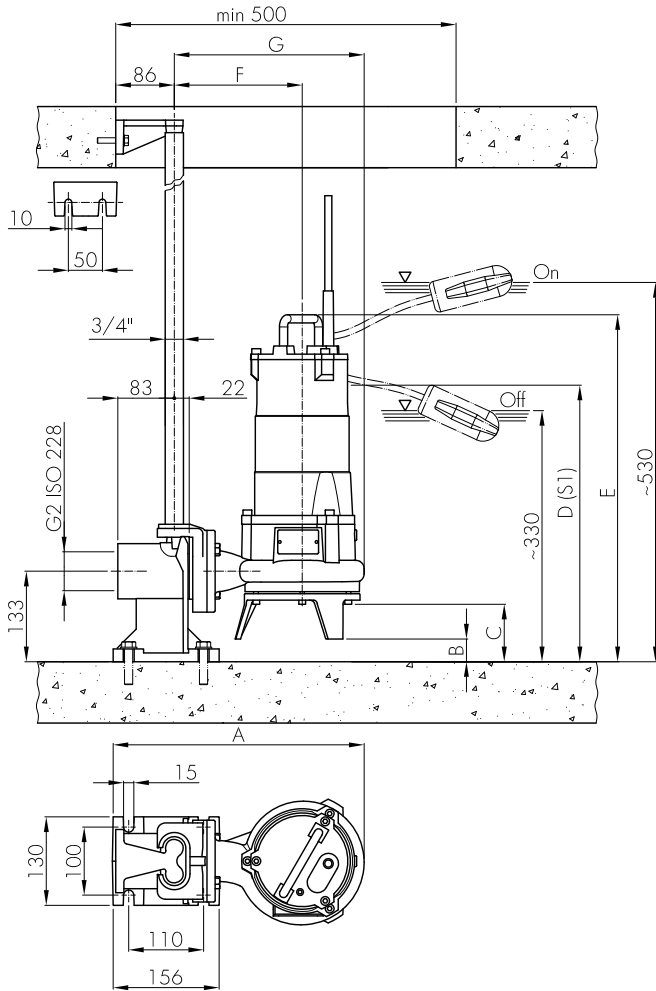
IMPELLER WITH GRINDER UNIT

50 Hz

2 POLE

## PERMANENT INSTALLATION WITH COUPLING SYSTEM

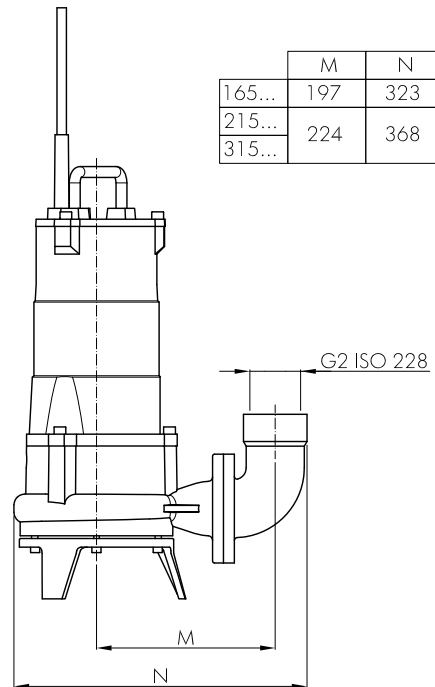
It is the recommended installation for the permanent pumping station. The electric pump is guided by two pipes and it is connected automatically to the coupling system. The quick connection ensures that the pump can be easily removed and re-installed.



	A	B	C	D(S1)	E	F	G
165...	370	34	85	407	510	193	279
215...	414	24	76	464	574	215	324
315...							

## PORTABLE INSTALLATION

Transportable as emergency pump with connection to the hose and for free installation in the well.



	M	N
165...	197	323
215...	224	368
315...		

## NOTES



**i** Changes reserved

02/2019