

Submersible Pumps With Grinder



Sewage



Residential



Commercial



PERFORMANCE RANGE

- Flow rate up to **66 GPM** (250 l/min) (15 m³/h)
- Head up to **98 feet** (30 m)

APPLICATION LIMITS

- **32 feet** (10 m) Maximum Immersion Depth (with a sufficiently long power cable)
- Maximum Liquid Temperature **140°F** (+40°C)
- Suction Down Above Ground Level:
 - **3.3 in** (85 mm) for TR 0.75-1.1
 - **3.7 in** (95 mm) for TR 1.5-2.2
- Minimum Immersion Depth for Continuous Service:
 - **11.8 in** (300 mm) for TR 0.75-1.1
 - **13.7** (350 mm) for TR 1.5-2.2

CONSTRUCTION AND SAFETY STANDARDS

- **32 feet** (10 m) long power cable
- External float switch and control box for single-phase versions

EN 60335-1
IEC 60335-1
CEI 61-150

EN 60034-1
IEC 60034-1
CEI 2-3



CERTIFICATIONS

Company with management system certified DNV
ISO 9001: QUALITY

FEATURES AND BENEFITS

- Heavy gauge cast iron
- Resistant to abrasion
- Long-lasting
- Stainless steel grinder

APPLICATIONS AND MARKETS

- Sewage
- Residential
- Commercial

PATENTS - TRADE MARKS - MODELS

- Patent No. EP2313658
- Patent No. IT0001428923
- Registered EU Design No. 002501486-0002 (TR 0.75, TR 1.1)
- TRITUS® Registered trade mark No. 013017181

OPTIONS AVAILABLE ON REQUEST

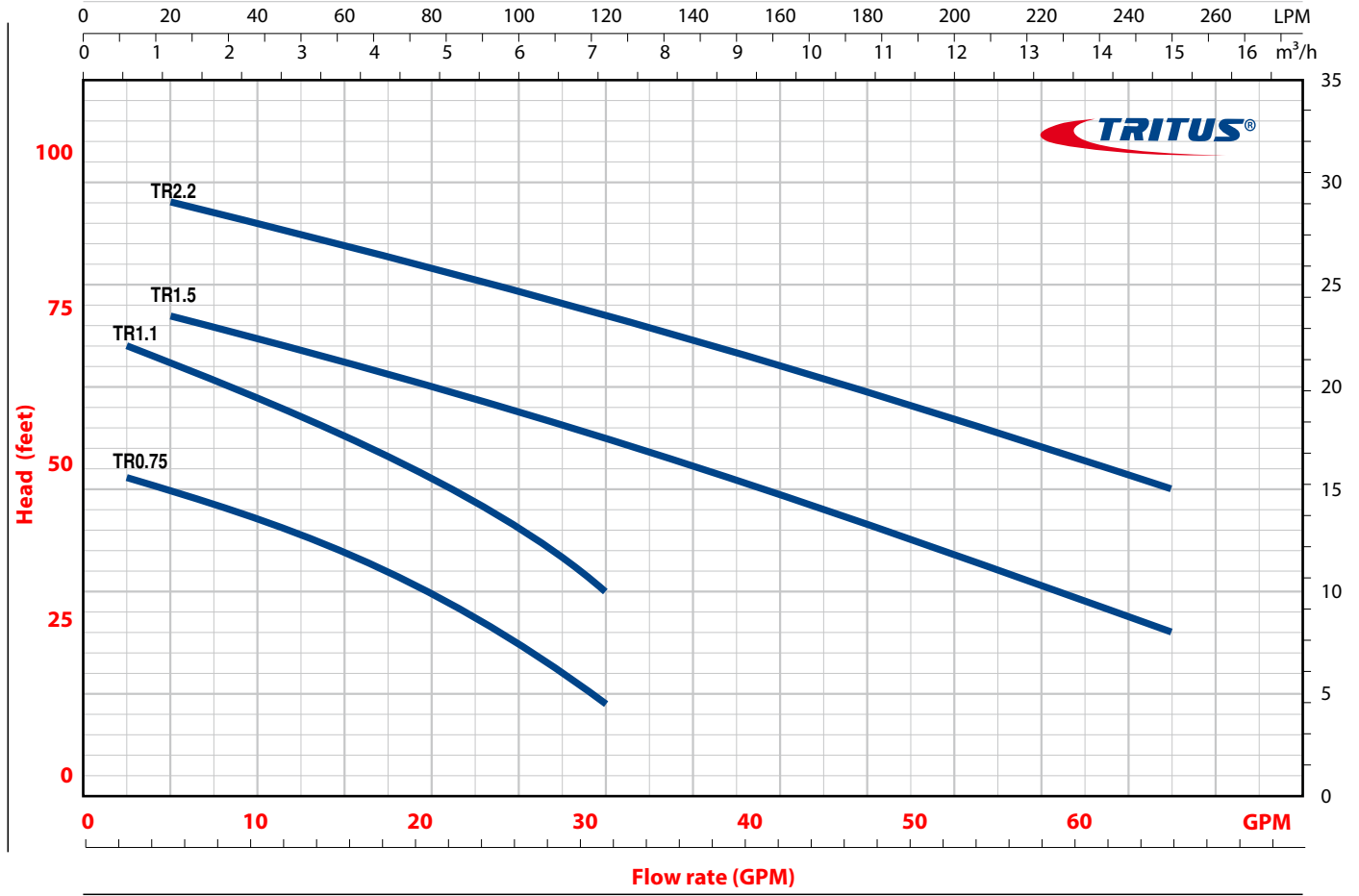
- Single-phase pumps without float switch
- Other voltages

GUARANTEE

2 YEARS subject to terms and conditions

PERFORMANCE CURVES AND DATA

60 Hz RPM = 3450



MODEL NUMBER		MOTOR SIZE		LPM	0	10	20	40	60	80	100	120	150	180	210	250
Single-phase	Three-phase	kW	HP	GPM	0	2.6	5.3	10.6	15.8	21.1	26.4	31.7	39.6	47.5	55.5	66.0
TRm 0.75	TR 0.75	0.75	1.00	HEAD (feet)	54.1	50.8	49.2	44.3	38.7	32.8	24.6	14.7				
TRm 1.1	TR 1.1	1.10	1.50		75.5	72.2	68.9	63.9	57.4	50.8	42.6	32.8				
TRm 1.5	TR 1.5	1.50	2.00		80.4	-	77.1	72.2	69.5	65.6	61.7	57.4	50.8	44.3	36.7	26.2
-	TR 2.2	2.20	3.00		98.4	-	95.1	91.8	88.6	84.6	80.4	77.1	71.2	64.9	58.4	49.2

Tolerance of characteristic curves in compliance with EN ISO 9906 Grade 3B.

TRITUS 0.75 – 1.1

NO. COMPONENT CONSTRUCTION CHARACTERISTICS

1 PUMP BODY	Cast iron with an Epoxy Electro Coating treatment, with threaded port in compliance with ISO 228/1
2 IMPELLER	Technopolymer open type
3 GRINDER	Tempered AISI 440C stainless steel
4 MOTOR SHAFT	Stainless steel AISI 431
5 MOTOR CASING	Cast iron with an Epoxy Electro Coating treatment

6 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
MG1-14D SIC	Ø 0.5 in	Motor side	Silicon carbide	Graphite	NBR
		Pump side	Silicon carbide	Silicon carbide	NBR

7 BEARINGS 6203 ZZ-C3E / 6203 ZZ-C3E

8 ELECTRIC MOTOR

TRm: single-phase 230 V - 60 Hz
with thermal overload protector incorporated into the winding

TR: three-phase 440 V - 60 Hz

- Insulation: class F
- Protection: IP X8

9 POWER CABLE

"H07 RN-F" type **Standard length 32 feet** (10 m)

10 FLOAT SWITCH

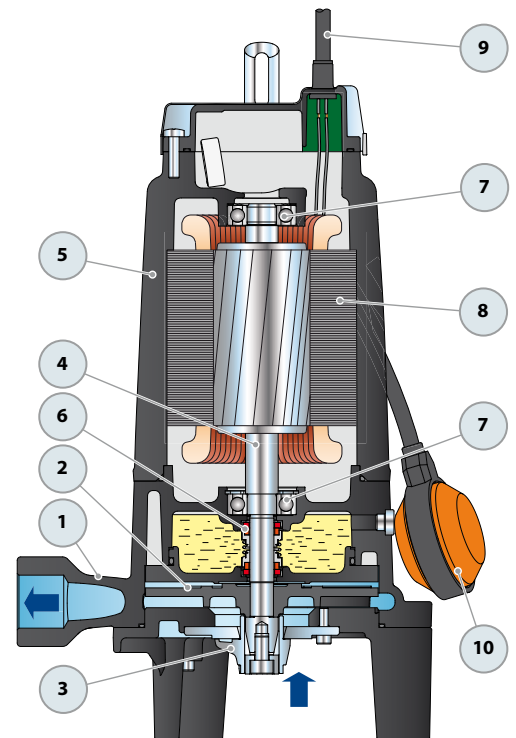
(only for single-phase versions)

11 CONTROL BOX

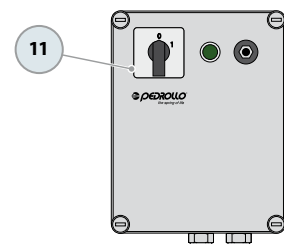
(only for single-phase versions)

With manual overload cut-out and with capacitors for starting and operating.

Pump Single-phase (230 V)	Capacitance of the operating capacitor	Capacitance of the starting capacitor
TRm 0.75		
TRm 1.1	25 µF - 450 VL	80 µF - 450 VL



Standard features

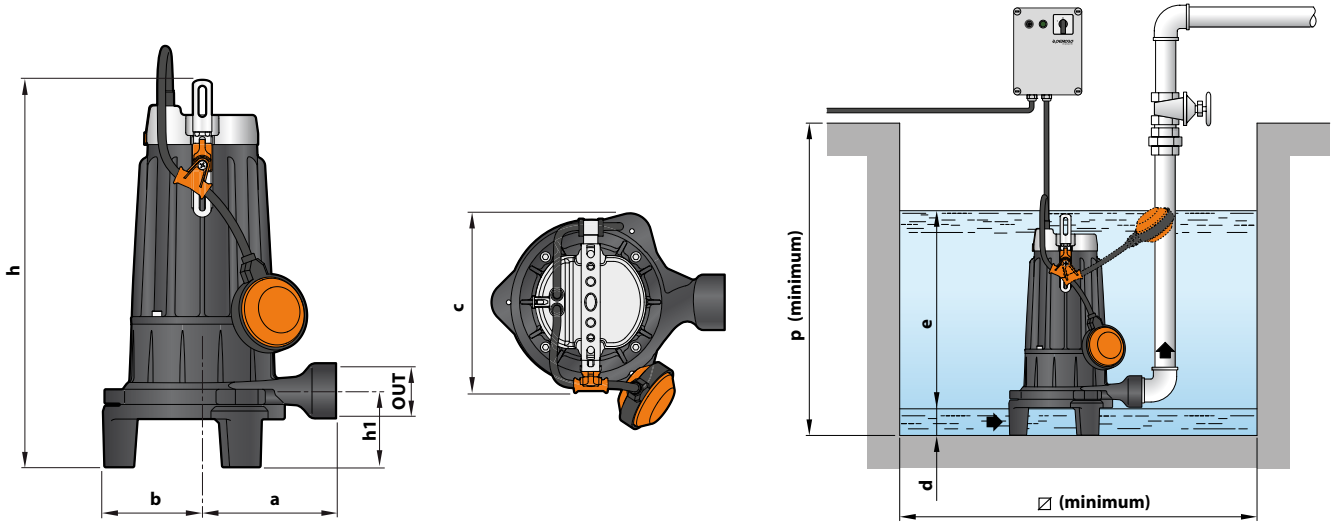


Control box

(only for single-phase versions)

DIMENSIONS AND WEIGHT

Standard installation (for single-phase version)



MODEL NUMBER		PORT OUT	DIMENSIONS (inches)									Lbs *	
Single-phase	Three-phase		a	b	c	h	h1	d	e	p	∅	1-PH	3-PH
TRm 0.75	TR 0.75	1 1/4"	5.5	0.39	7.3	15.9	3.1	3.3	variable	19.7	19.7	52.9	48.5
TRm 1.1	TR 1.1											56.6	50.7

(* weight of pump without control box)

ABSORPTION

MODEL	VOLTAGE
Single-phase	230 V
TRm 0.75	5.5 A
TRm 1.1	7.4 A

MODEL	VOLTAGE	
	230 V	440 V
Three-phase		
TR 0.75	4.7 A	2.7 A
TR 1.1	5.9 A	3.4 A

TRITUS 1.5 – 2.2

NO. COMPONENT CONSTRUCTION CHARACTERISTICS

1	PUMP BODY	Cast iron with an Epoxy Electro Coating treatment, with threaded port in compliance with ISO 228/1
2	IMPELLER	Precision cast stainless steel AISI 304 open type
3	GRINDER	Tempered AISI 440C stainless steel
4	MOTOR SHAFT	Stainless steel AISI 431
5	MOTOR CASING	Cast iron with an Epoxy Electro Coating treatment

6 SHAFT WITH DOUBLE MECHANICAL SEAL SEPARATED BY AN OIL CHAMBER

Seal Model	Shaft Diameter	Position	Materials		
			Stationary ring	Rotational ring	Elastomer
STA-20	Ø 0.8 in	Motor side	Graphite	Graphite	NBR
STA-19	Ø 0.7 in	Pump side	Silicon carbide	Silicon carbide	NBR

7 BEARINGS 3304 B-ZZ-C3 / 6304 ZZ-C3

8 ELECTRIC MOTOR

TRm: single-phase 230 V - 60 Hz
with thermal overload protector incorporated into the winding

TR: three-phase 440 V - 60 Hz
with thermal overload protector incorporated into the winding to be connected to the control box

- Insulation: class F
- Protection: IP X8

9 POWER CABLE

"H07 RN-F" type **Standard length 32 feet (10 m)**

10 FLOAT SWITCH

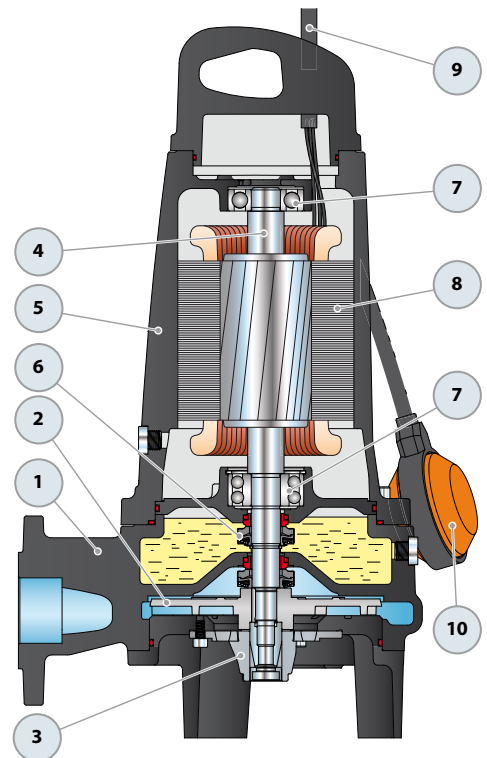
(only for single-phase versions)

11 CONTROL BOX

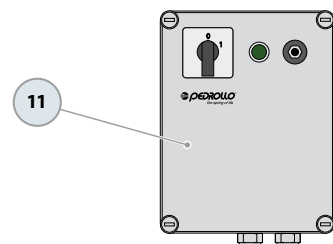
(only for single-phase versions)

With manual overload cut-out and with capacitors for starting and operating.

Pump Single-phase (230 V)	Capacitance of the operating capacitor	Capacitance of the starting capacitor
TRm 1.5	50 µF - 450 VL	80 µF - 450 VL



Standard features

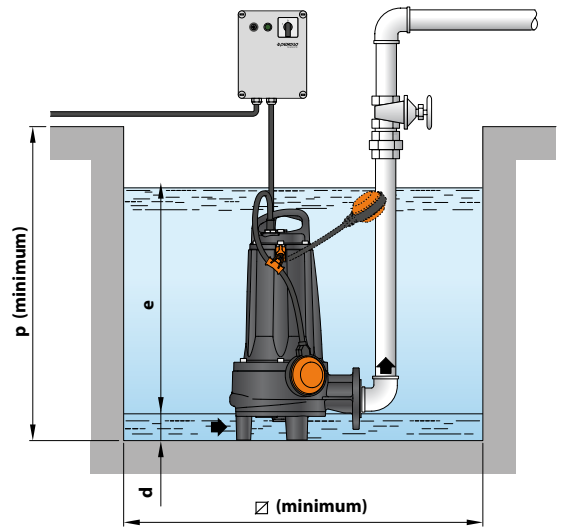
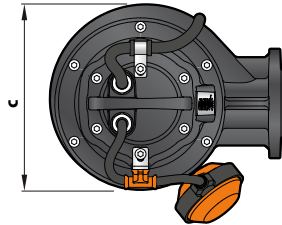
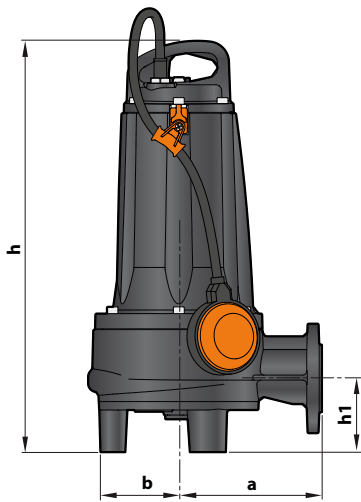


Control box

(only for single-phase versions)

DIMENSIONS AND WEIGHT

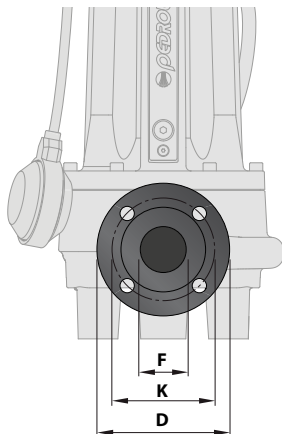
Standard installation (for single-phase version)



MODEL NUMBER		DIMENSIONS (inches)									Lbs	
Single-phase	Three-phase	a	b	c	h	h1	d	e	p	∅	1-PH	3-PH
TRm 1.5	TR 1.5	6.7	4.3	8.7	19.3	3.4	3.7	variable	31.5	31.5	100.3	92.6
-	TR 2.2										-	97.0

FLANGED PORTS

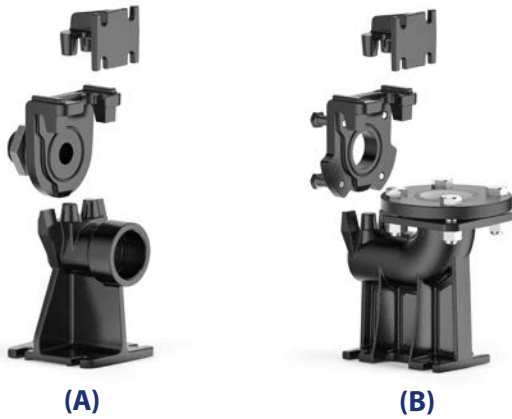
MODEL		FLANGE	F	K	D	HOLES	
Single-phase	Three-phase	DN		in	in	N.	∅ (in)
TRm 1.5	TR 1.5	40 (PN6)	1½"	3.9	5.1	4	0.55
-	TR 2.2						



ABSORPTION

MODEL	VOLTAGE
Single-phase	230 V
TRm 1.5	11.0 A

MODEL	VOLTAGE	
Three-phase	230 V	440 V
TR 1.5	7.8 A	4.5 A
TR 2.2	11.3 A	6.5 A



A) HORIZONTAL DELIVERY VERSION WITH 3/4" GUIDE TUBES

For TR 0.75, TR 1.1	Cod. ASSPTRITUS11	DN 2"
For TR 1.5, TR 2.2	Cod. ASSPTRITUS22	DN 2"

Kit consisting of:

- footing connection
- slide guide
(with ring nut and seal for TR 0.75, TR 1.1,
with screws and seal for TR 1.5 and TR 2.2)
- support for the guide tubes

B) VERTICAL DELIVERY VERSION WITH 3/4" GUIDE TUBES

For TR 0.75, TR 1.1	Cod. ASSPTRITUS11V	DN 2½"
For TR 1.5, TR 2.2	Cod. ASSPTRITUS22V	DN 2½"

Kit consisting of:

- footing connection complete with counterflange
- slide guide
(with ring nut and seal for TR 0.75, TR 1.1,
with screws and seal for TR 1.5 and TR 2.2)
- support for the guide tubes

● INTERMEDIATE SUPPORT (To be ordered separately)

Cod. 859SV340INTFA For Ø 3/4" guide tubes



In order to ensure stability, insert one intermediate support every two metres of guide tube

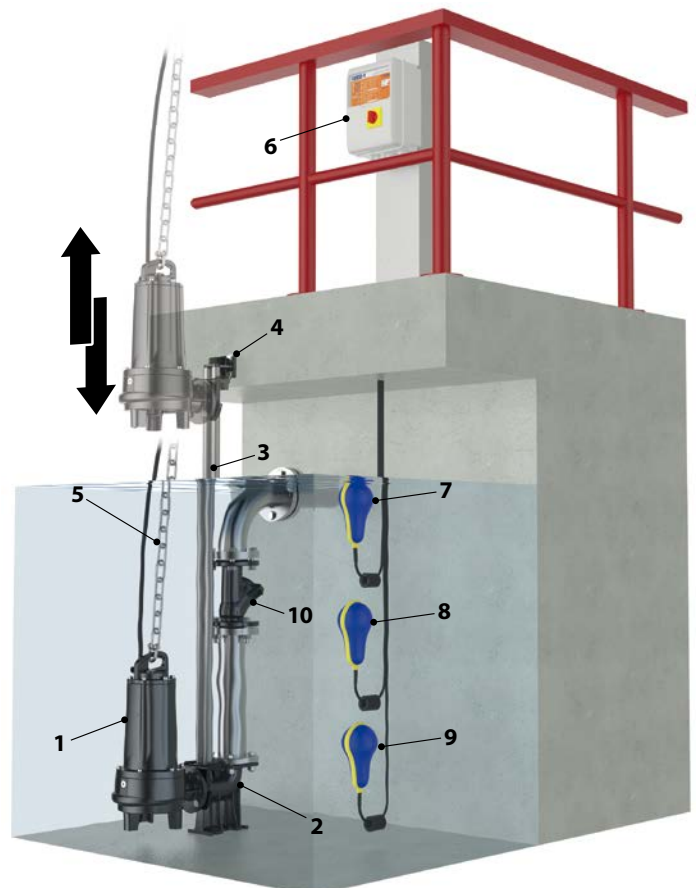
GUIDE TUBES (AISI 304 stainless steel)

Cod. 54SARTG005 Ø 3/4"

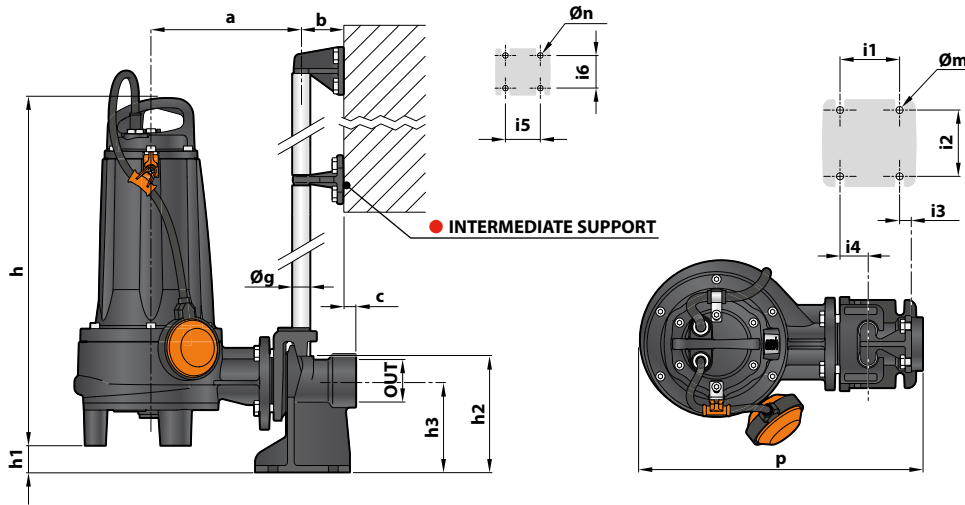
Maximum length of the tube plank: 20 feet (6 m)

STANDARD INSTALLATION

1. Pump
2. Footing connection
3. Guide tubes
4. Support for the guide tubes
5. Lifting chain
6. Control box
7. Alarm float switch
8. Starting float switch
9. Stop float switch
10. Non-return valve

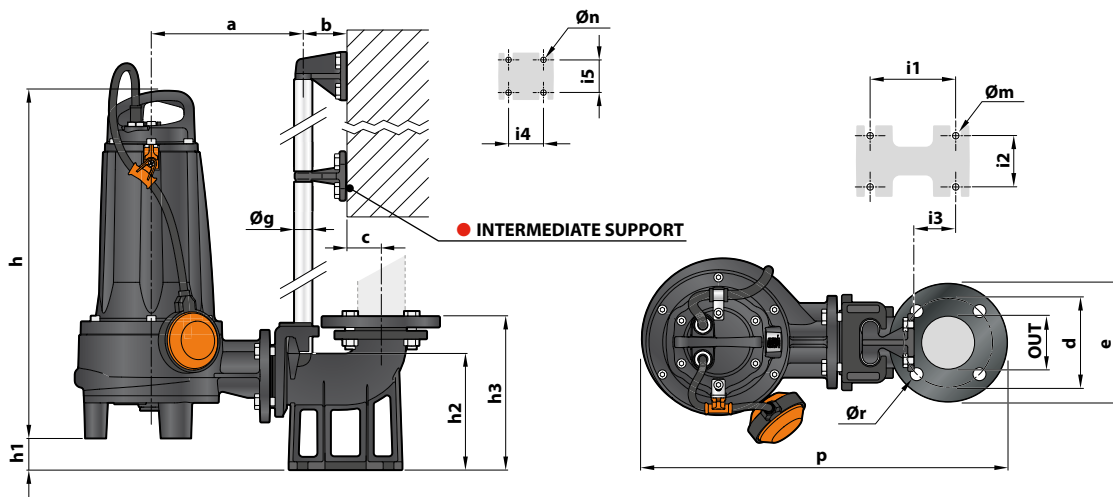


DIMENSIONS (Horizontal Delivery Version)



MODEL NUMBER		PORT OUT	DIMENSIONS (inches)																
Single-phase	Three-phase		a	b	c	p	h	h1	h2	h3	i1	i2	i3	i4	i5	i6	Øg	Øm	Øn
TRm 0.75	TR 0.75	2"	8.3	2.4	0.7	15.4	15.9	1.9	6.5	5.1	3.3	3.7	1.6	0.6	1.9	1.8	¾"	0.4	0.4
TRm 1.1	TR 1.1																		
TRm 1.5	TR 1.5	2"	8.5	2.4	0.7	15.8	19.3	1.6	6.5	5.1	3.3	3.7	1.6	0.6	1.9	48	¾"	0.4	0.4
-	TR 2.2																		

DIMENSIONS (Vertical delivery version)



MODEL NUMBER		PORT OUT	DIMENSIONS (inches)																		
Single-phase	Three-phase		a	b	c	d	e	p	h	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn	Ør
TRm 0.75	TR 0.75	2½"	7.9	2.4	2.0	4.9	6.5	19.7	15.9	1.8	6.4	8.5	4.7	2.8	2.4	1.9	1.8	¾"	0.5	0.4	0.7
TRm 1.1	TR 1.1																				
TRm 1.5	TR 1.5	2½"	8.3	2.4	2.0	4.9	6.5	20.3	19.3	1.5	6.4	8.5	4.7	2.8	2.4	1.9	1.8	¾"	0.5	0.4	0.7
-	TR 2.2																				