

-  Sewage
-  Domestic use
-  Industrial use



TRm 1.3



TRm 2.2 AP

### PERFORMANCE RANGE

- Flow rate up to **430 l/min** (25.8 m<sup>3</sup>/h)
- Head up to **55 m**

### INSTALLATION AND USE

The **TRITUS** is constructed from thick cast iron, offering exceptional robustness, abrasion resistance, and longevity. The pumps are equipped with a robust, **hardened stainless steel blade**, expertly designed to cut through solids and fibers found in **domestic and civil** wastewater and sewage, for pressurized transfer of materials into sewage systems via small-diameter piping.

### INCLUDES

- ✳ Power cable length **10 m**
- ✳ Float switch (exclusive to single-phase models)
- ✳ Switchbox compatible with single-phase versions
- ✳ For **TR5** and **TR6** internal probes that detect the presence of water in the oil chamber

### APPLICATION LIMITS

- Depth below water level up to **10 m** (with an appropriately sized power cable)
- Liquid temperature up to **+40 °C**
- Draining capability from bottom up to:
  - **85 mm** for 0.75, 0.9, 1.1, 1.3
  - **95 mm** for 1.5, 2.2, TR 2.2 AP, TR 3 AP, TR 3, TR 4
  - **130 mm** per TR 5, TR 6
- **Immersione minima per servizio continuo:**
  - **300 mm** for 0.75, 0.9, 1.1, 1.3
  - **350 mm** for 1.5, 2.2, TR 2.2 AP, TR 3 AP, TR 3, TR 4
  - **490 mm** for TR 5, TR 6

### AVAILABLE UPON REQUEST

- ✳ Different voltage requirements 60 Hz frequency

### WARRANTY

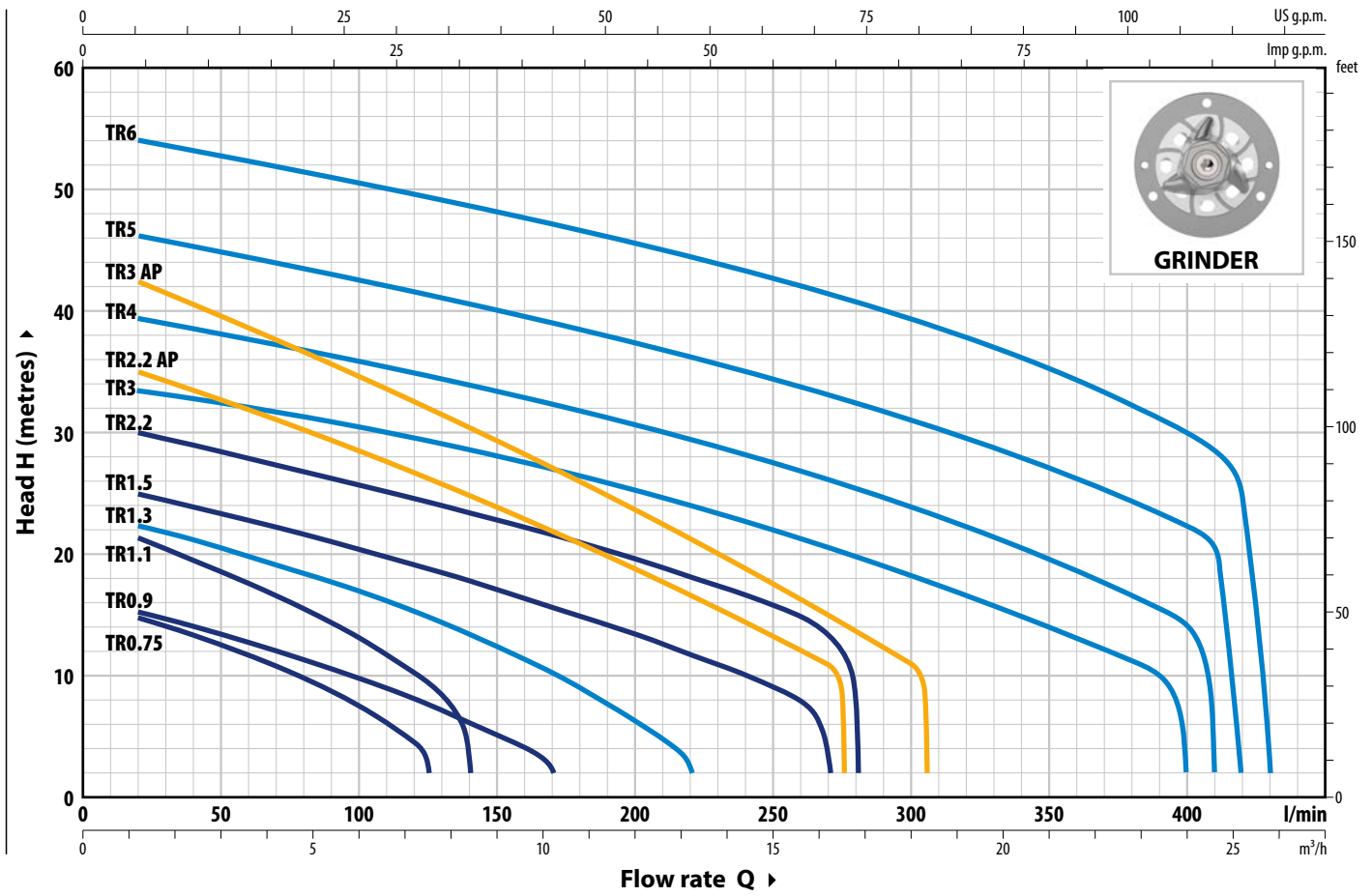
- ✳ **The warranty for the Three-Phase TR 1.5, TR 2.2, TR 2.2 AP, TR3 AP, TR3, TR 4 models remains valid only if the motor's built-in thermal protector is properly connected to the control panel. This connection is essential for the warranty's applicability.**

### PATENTS - TRADE MARKS - MODELS

- Patent No. IT0001428923
- Registered Community Model No. 002501486-0002, 008625685-0005, 008625685-0006
- TRITUS® Registered Trade mark No. 013017181

### CURVES AND PERFORMANCE DATA

50 Hz



TYPE		POWER (P <sub>2</sub> )		Q	m <sup>3</sup> /h															
Single-ph.	Three-ph.	kW	HP		0	1.2	3	4.8	6	7.5	8.4	10.2	12	13.2	14.4	16.2	16.8			
				l/min	0	20	50	80	100	125	140	170	200	220	240	270	280			
TRm 0.75	TR 0.75	0.75	1	H m	16.5	15	12.7	10	7.5	2										
TRm 0.9	TR 0.9	0.9	1.25		16	15	13.2	11	9.6	7.5	6	2								
TRm 1.1	TR 1.1	1.1	1.5		23	21.5	18.6	15.5	13	9.5	2									
TRm 1.3	TR 1.3	1.3	1.75		23.5	22.5	20.6	18.4	17	14.8	13.4	10.2	6.2	2						
TRm 1.5	TR 1.5	1.5	2		26	25	23.4	21.7	20.4	18.8	17.8	15.6	13.4	11.7	10	2				
-	TR 2.2	2.2	3		31	30	28.4	26.8	25.7	24.3	23.5	21.5	19.5	18	16.5	13.2	2			

TYPE		POWER (P <sub>2</sub> )		Q	m <sup>3</sup> /h										
Single-ph.	Three-ph.	kW	HP		0	1.2	3	6	9	12	15	16.5	18	18.3	
				l/min	0	20	50	100	150	200	250	275	300	305	
TRm 2.2 AP	TR 2.2 AP	2.2	3	H m	36.5	35	33	28.5	23.8	18.7	13.2	2			
-	TR 3 AP	3	4		44.5	42.5	40	35	29.5	23.7	17.5	14.3	11	2	

TYPE		POWER (P <sub>2</sub> )		Q	m <sup>3</sup> /h													
Three-phase		kW	HP		0	1.2	3	6	9	12	15	18	21	24	24.6			
				l/min	0	20	50	100	150	200	250	300	350	400	410			
TR 3		3	4	H m	34.5	33.5	32.5	30.4	28	25.2	22	18.4	14.2	2				
TR 4		4	5.5		40	39.5	38	35.7	33.3	30.6	27.4	23.8	19.4	14.3	2			

TYPE		POWER (P <sub>2</sub> )		Q	m <sup>3</sup> /h														
Three-phase		kW	HP		0	1.2	3	6	9	12	15	18	21	24	25.2	25.8			
				l/min	0	20	50	100	150	200	250	300	350	400	420	430			
TR 5		5	6.7	H m	47	46	44.7	42.4	40	37.4	34.5	31.1	27.2	22.5	2				
TR 6		6	8		55	54	52.5	50.3	48.1	45.6	42.8	39.5	35.3	30.2	25	2			

Q = Flow rate H = Total manometric head

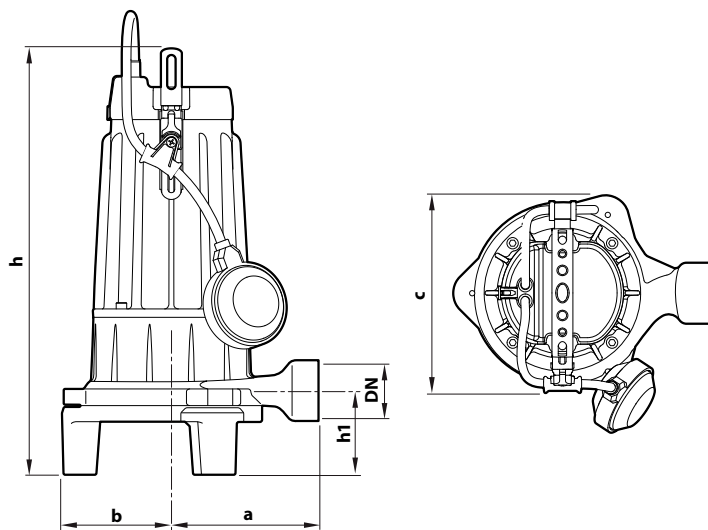
Performance curves comply with EN ISO 9906 Grade 3B tolerance limits.

### ABSORPTION

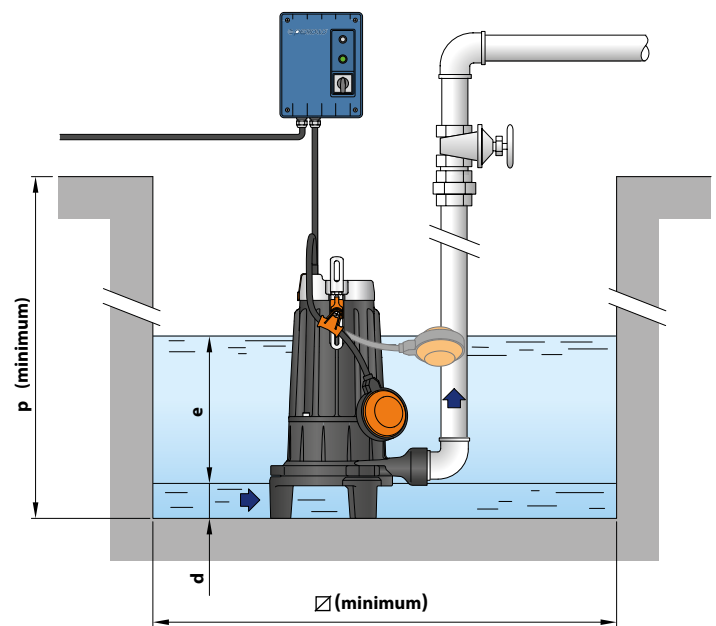
TYPE	VOLTAGE
<b>Single-phase</b>	<b>230 V</b>
<b>TRm 0.75</b>	5.5 A
<b>TRm 0.9</b>	6.0 A
<b>TRm 1.1</b>	7.4 A
<b>TRm 1.3</b>	9.0 A

TYPE	VOLTAGE
<b>Three-phase</b>	<b>400 V</b>
<b>TR 0.75</b>	2.5 A
<b>TR 0.9</b>	2.6 A
<b>TR 1.1</b>	3.0 A
<b>TR 1.3</b>	3.8 A

### DIMENSIONS AND WEIGHT



### Typical installation



TYPE		PORT DN	DIMENSIONS mm									kg *	
Single-ph.	Three-ph.		a	b	c	h	h1	d	e	p	∅	1~	3~
<b>TRm 0.75</b>	<b>TR 0.75</b>	1 1/4"	140	104	186	406	80	85	regolabile	500	500	24.0	22.2
<b>TRm 0.9</b>	<b>TR 0.9</b>											23.9	22.2
<b>TRm 1.1</b>	<b>TR 1.1</b>											25.7	23.1
<b>TRm 1.3</b>	<b>TR 1.3</b>											25.5	23.1

(\* peso elettropompa senza il quadro elettrico)

### PALLET CAPACITY

TYPE	NO. OF PUMPS
<b>Single-ph.</b>	
<b>TRm 0.75</b>	36
<b>TRm 0.9</b>	36
<b>TRm 1.1</b>	36
<b>TRm 1.3</b>	36

TYPE	NO. OF PUMPS
<b>Three-ph.</b>	
<b>TR 0.75</b>	60
<b>TR 0.9</b>	60
<b>TR 1.1</b>	60
<b>TR 1.3</b>	60

## MATERIALS AND COMPONENTS

**1 Pump body** Cast iron with cataphoresis treatment

**2 Impeller** Open type in technopolymer

**3 Grinder** Hardened **AISI 440C** stainless steel

**4 Motor shaft** Stainless steel **AISI 431**

**5 Motor holder** Cast iron with cataphoresis treatment

### 6 Double mechanical seal in oil chamber

Seal	Shaft	Location	Materials
<b>MG1-14D SIC</b>	Ø 14 mm	Motor side	Silicon carbide / Graphite / NBR
		Pump side	Silicon carbide/Silicon carbide/NBR

### 7 Electric Motor

**TRm:** single-phase 230 V - 50 Hz with thermal motor protection

**TR:** three-phase 400 V - 50Hz

- Insulation: class F
- Protection rating: IP X8

### 8 Power cord

※ 10 metres 'H07 RN-F' type

### 9 Float switch

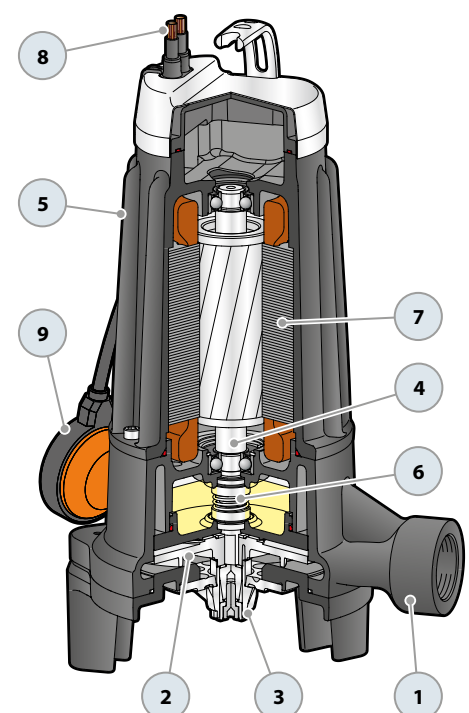
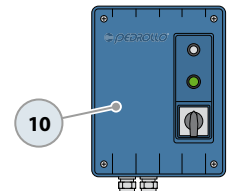
(exclusive to single-phase models)

### 10 Control panel (exclusive to single-phase models)

Including:

- ON/OFF switch
- manual reset motor protection
- operating capacitor (permanently switched on)
- starting capacitor

**Control panel**  
(standard for single-phase versions)

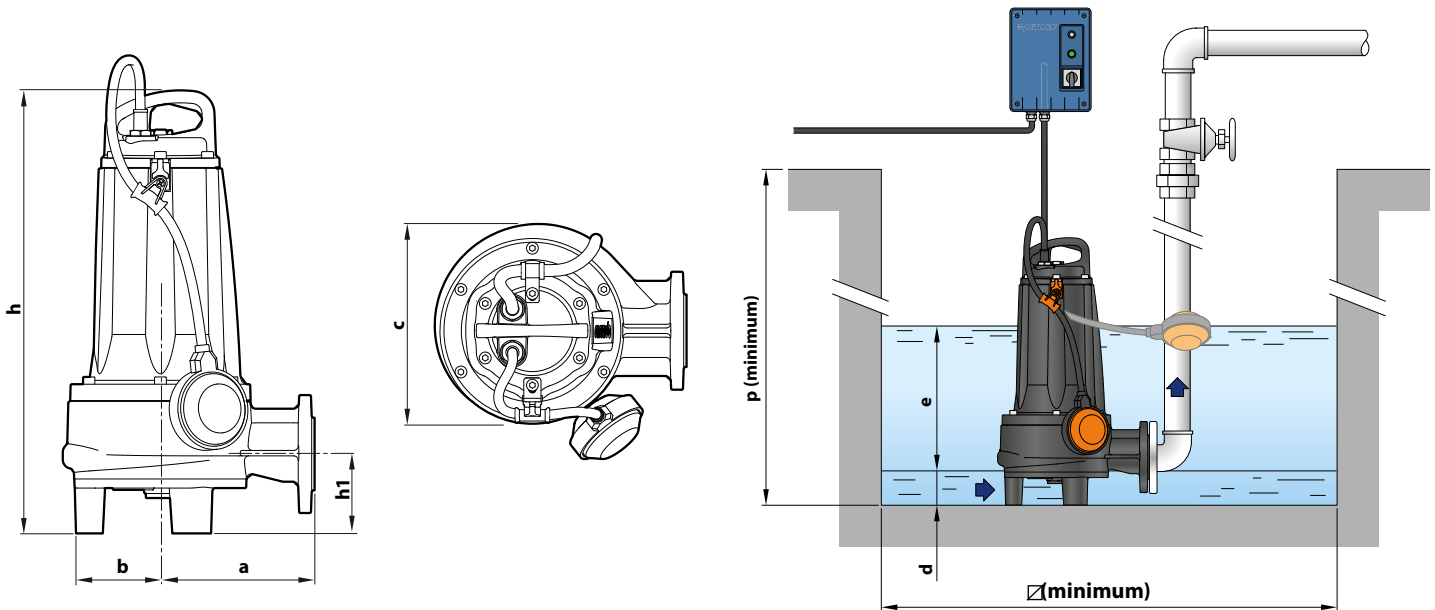


### ABSORPTION

TYPE	VOLTAGE
<b>Single-phase</b>	<b>230 V</b>
<b>TRm 1.5</b>	10.0 A

TYPE	VOLTAGE
<b>Three-phase</b>	<b>400 V</b>
<b>TR 1.5</b>	3.7 A
<b>TR 2.2</b>	5.5 A

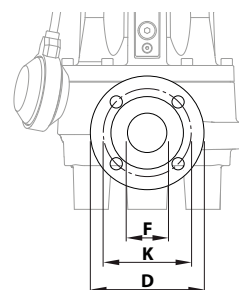
### DIMENSIONS AND WEIGHT



TYPE		DIMENSIONS mm									kg	
Single-phase	Three-phase	a	b	c	h	h1	d	e	p	Ø	1~	3~
<b>TRm 1.5</b>	<b>TR 1.5</b>	172	105	221	489	87.5	95	adjustable	800	800	45.0	44.0
-	<b>TR 2.2</b>										-	44.0

### PORT FLANGE

TYPE		FLANGE	F	K	D	HOLES	
Single-phase	Three-phase	DN		mm	mm	N°	Ø (mm)
<b>TRm 1.5</b>	<b>TR 1.5</b>	<b>40</b> (PN6)	1½"	100	130	4	14
-	<b>TR 2.2</b>						



### PALLET CAPACITY

TYPE		NO. OF PUMPS
Single-phase	Three-phase	
<b>TRm 1.5</b>	<b>TR 1.5</b>	12
-	<b>TR 2.2</b>	12

## MATERIALS AND COMPONENTS

**1 Pump body** Cast iron with cataphoresis treatment

**2 Impeller** Micro-cast **AISI 304** stainless steel

**3 Grinder** Hardened **AISI 440C** stainless steel

**4 Motor shaft** Stainless steel **AISI 431**

**5 Motor holder** Cast iron with cataphoresis treatment

### 6 Double mechanical seal with interposed oil chamber

Seal	Shaft	Location	Materials
<b>STA-20</b>	Ø 20 mm	Motor side	Ceramic / Graphite / NBR
<b>STA-19</b>	Ø 19 mm	Pump side	Silicon carbide/Silicon carbide/NBR

### 7 Electric Motor

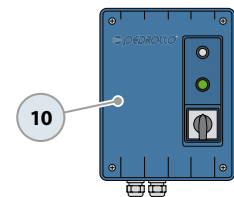
**TRm:** single-phase 230 V - 50 Hz with thermal motor protection

**TR:** three-phase 400 V - 50Hz

✘ with winding integrated thermal motor protection to be connected to the control panel

- Insulation: class F
- Protection rating: IP X8

**Control panel**  
(standard for single-phase versions)



### 8 Power cord

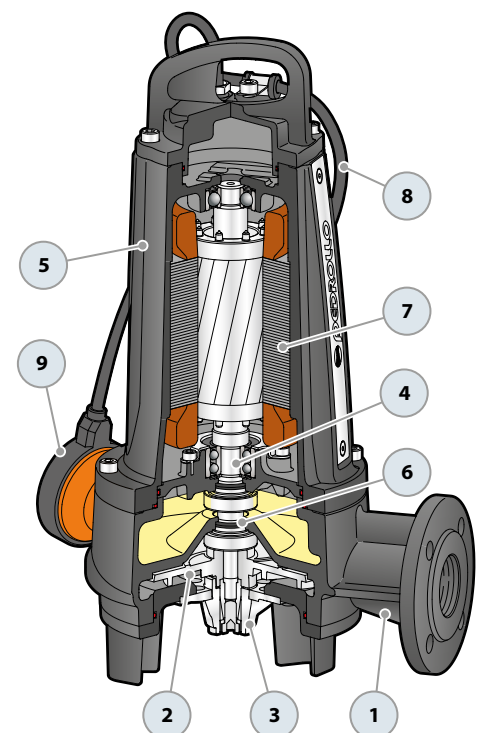
✘ 10 metres 'H07 RN-F' type

### 9 Float switch

(exclusive to single-phase models)

### 10 Control panel (exclusive to single-phase models)

- Including:
- ON/OFF switch
  - manual reset motor protection
  - operating capacitor (permanently switched on)
  - starting capacitor

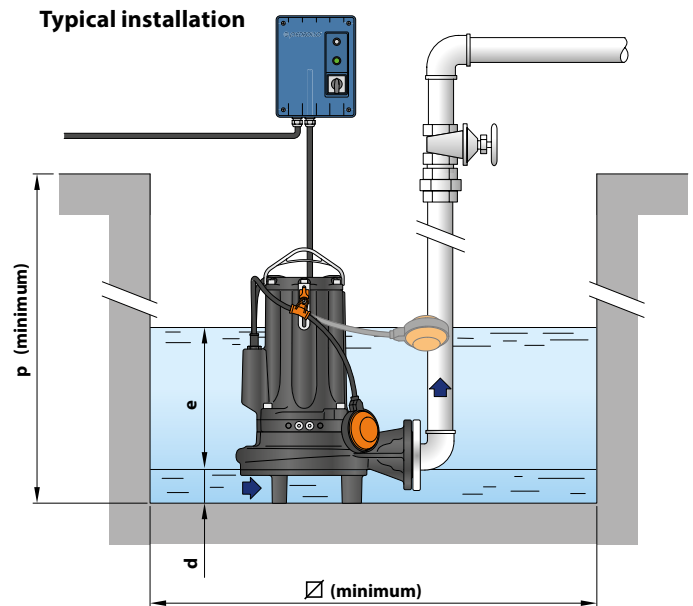
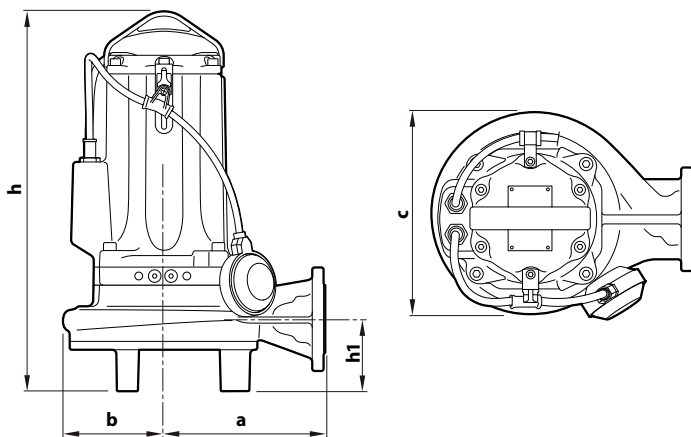


### ABSORPTION

TYPE	VOLTAGE
<b>Single-phase</b>	<b>230 V</b>
<b>TRm 2.2 AP</b>	14.0 A

TYPE	VOLTAGE
<b>Three-phase</b>	<b>400 V</b>
<b>TR 2.2 AP</b>	5.5 A
<b>TR 3 AP</b>	6.3 A
<b>TR 3</b>	6.3 A
<b>TR 4</b>	7.5 A

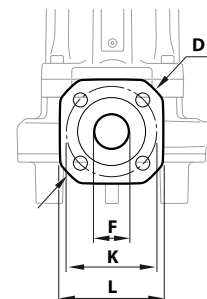
### DIMENSIONS AND WEIGHT



TYPE		DIMENSIONS mm									kg	
Single-phase	Three-phase	a	b	c	h	h1	d	e	p	Ø	1~	3~
<b>TRm 2.2 AP</b>	<b>TR 2.2 AP</b>	203	126	256	480   453	90	95	adjustable	800	800	53.5	47.0
-	<b>TR 3 AP</b>				480						-	53.0
-	<b>TR 3</b>				-						-	53.0
-	<b>TR 4</b>				-						-	54.0

### PORT FLANGE

TYPE		FLANGE DN	F	K mm	D mm	L mm	HOLES	
Single-phase	Three-phase						N°	Ø mm
<b>TRm 2.2 AP</b>	<b>TR 2.2 AP</b>	<b>40</b> (PN10)	1½"	110	150	130	4	18
-	<b>TR 3 AP</b>							
-	<b>TR 3</b>							
-	<b>TR 4</b>							



### PALLET CAPACITY

TYPE		NO. OF PUMPS
Single-phase	Three-phase	
<b>TRm 2.2 AP</b>	<b>TR 2.2 AP</b>	18
-	<b>TR 3 AP</b>	18
-	<b>TR 3</b>	18
-	<b>TR 4</b>	18

## MATERIALS AND COMPONENTS

<b>1 Pump body</b>	Cast iron with cathoporesis treatment
<b>2 Impeller</b>	Open type in micro-cast <b>AISI 304</b> stainless steel
<b>3 Grinder</b>	Hardened <b>AISI 440C</b> stainless steel
<b>4 Motor shaft</b>	Stainless steel <b>AISI 431</b>
<b>5 Motor holder</b>	Cast iron with cathoporesis treatment
<b>6 Motor bracket</b>	Cast iron with cathoporesis treatment

### 7 Double mechanical seal with interposed oil chamber

Seal	Shaft	Location	Materials
<b>STA-24</b>	Ø 24 mm	Motor side	Ceramic / Graphite / NBR
<b>STA-22 SIC</b>	Ø 22 mm	Pump side	Silicon Carbide/Silicon Carbide/NBR

### 8 Electric Motor

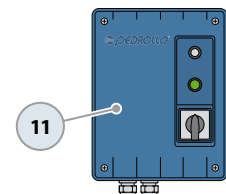
**TRm:** single-phase 230 V - 50 Hz with thermal motor protection

**TR:** three-phase 400 V - 50Hz

✘ with winding integrated thermal motor protection to be connected to the control panel

- Insulation: class F
- Protection rating: IP X8

**Control panel**  
(standard for single-phase versions)



### 9 Power cord

✘ 10 metres 'H07 RN-F' type

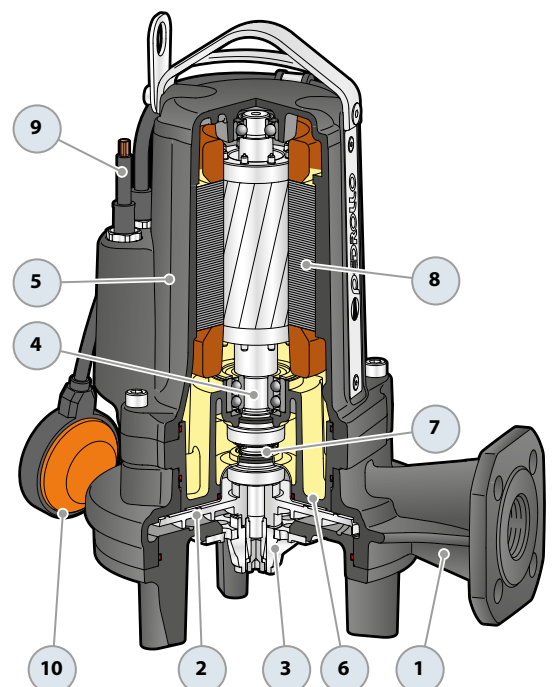
### 10 Float switch

(exclusive to single-phase models)

### 11 Control panel (exclusive to single-phase models)

Including:

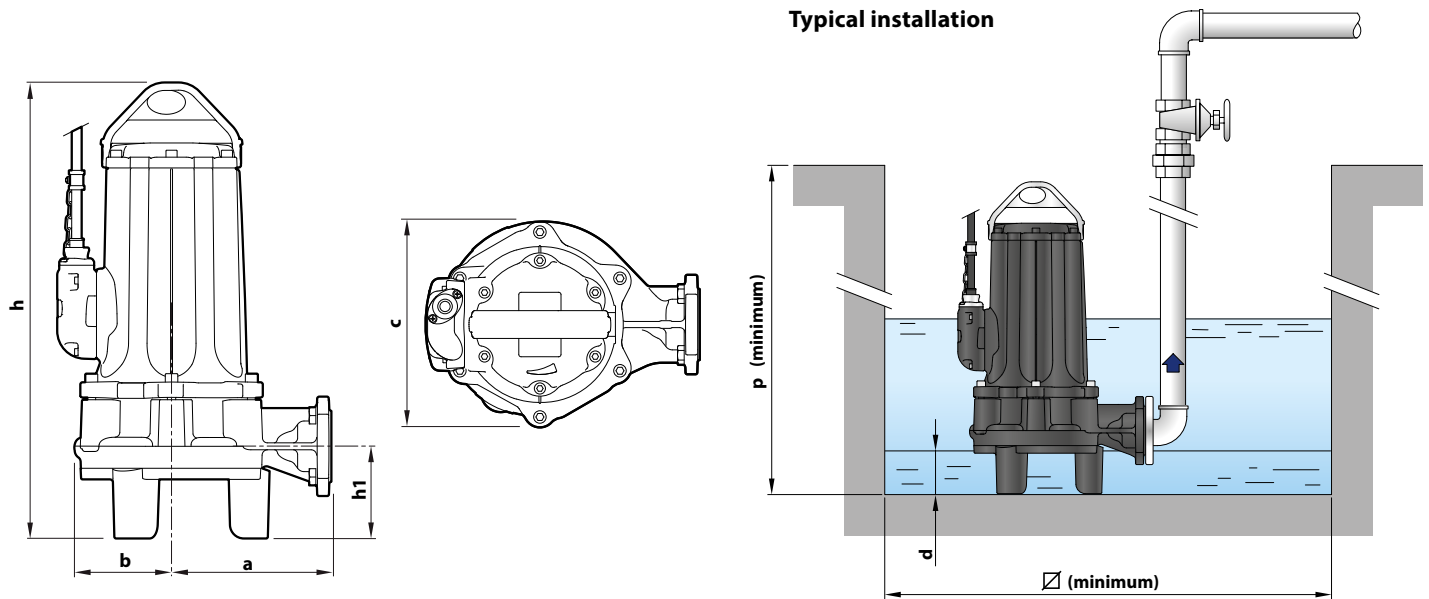
- ON/OFF switch
- manual reset motor protection
- operating capacitor (permanently switched on)
- starting capacitor



### ABSORPTION

TYPE	VOLTAGE
<b>Three-phase</b>	<b>400 V</b>
<b>TR 5</b>	10.5 A
<b>TR 6</b>	14.5 A

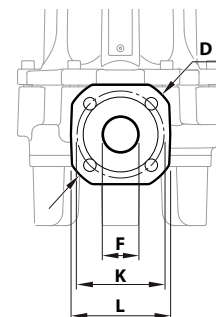
### DIMENSIONS AND WEIGHT



TYPE	DIMENSIONS mm								kg
	a	b	c	h	h1	d	p	Ø	
<b>Three-phase</b>									3~
<b>TR 5</b>	230	164.5	296	656	133	130	1000	1000	114.8
<b>TR 6</b>									117.8

### PORT FLANGE

TYPE	FLANGE DN	F	K mm	D mm	L mm	HOLES	
						N°	Ø mm
<b>TR 5</b>	<b>50</b> (PN10)	2"	125	165	143	4	18
<b>TR 6</b>							



### PALLET CAPACITY

TYPE	NO. OF PUMPS
<b>Three-phase</b>	
<b>TR 5</b>	4
<b>TR 6</b>	4

## MATERIALS AND COMPONENTS

**1 Pump body** Cast iron with cathaphoresis treatment

**2 Impeller** Open type in micro-cast **AISI 304** stainless steel

**3 Grinder** Hardened **AISI 440C** stainless steel

**4 Motor shaft** Stainless steel **AISI 431**

**5 Motor holder** Cast iron with cathaphoresis treatment

### 6 Double mechanical seal with interposed oil chamber

Seal	Shaft	Location	Materials
<b>AR-27</b>	Ø 27 mm	Motor side	Silicon Carbide / Graphite / NBR
<b>MG1-25 SIC</b>	Ø 25 mm	Pump side	Silicon Carbide / Silicon Carbide / NBR

### 7 Electric Motor

Three-phase 400 V - 50 Hz  
with winding integrated thermal motor protection

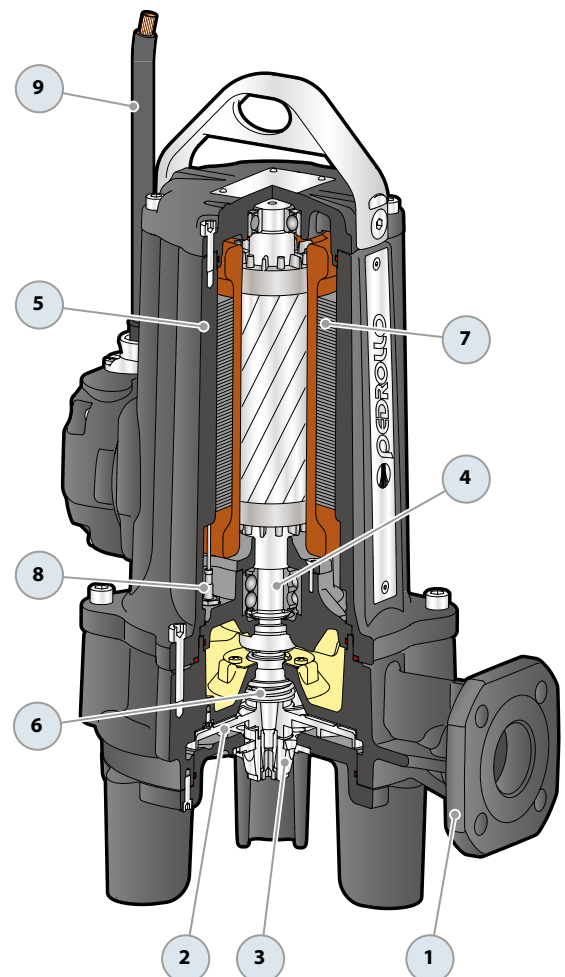
- Insulation: class F
- Protection rating: IP X8

### 8 Probes

✘ internal probes that detect the presence of water in the oil chamber

### 9 Power cord

✘ 10 metres 'H07 RN-F' type



# SEWAGE LIFTING SYSTEM (TRITUS 0.75 - 2.2)

## VERSION WITH HORIZONTAL DELIVERY AND 3/4" GUIDE PIPES

For TR 0.75, 0.9, 1.1, 1.3	Code ASSPTRITUS11	DN 2"
For TR 1.5, 2.2	Code ASSPTRITUS22	DN 2"

※ Kit consisting of:



Coupling foot



Guide rail



Support for guide tubes



## VERSION WITH VERTICAL DELIVERY AND 3/4" GUIDE PIPES

For TR 0.75, 0.9, 1.1, 1.3	Code ASSPTRITUS11V	DN 2 1/2"
For TR 1.5, 2.2	Code ASSPTRITUS22V	DN 2 1/2"

※ Kit consisting of:



Coupling foot complete with counter-flange



Guide rail



Support for guide tubes



## ● ACCESSORIES AVAILABLE FOR ORDER

### RUNNING GUIDE

※ For TR 0.75, 0.9, 1.1, 1.3	Code ASSFL003
※ For TR 1.5, 2.2	Code ASSFL004

Complete with ring nut and gasket for 0.75, 0.9, 1.1, 1.3

Complete with screws and seals for TR 1.5, 2.2

### GUIDE TUBE SUPPORT

※ For Ø 3/4 " guide tubes	Code 859SV340INTFA
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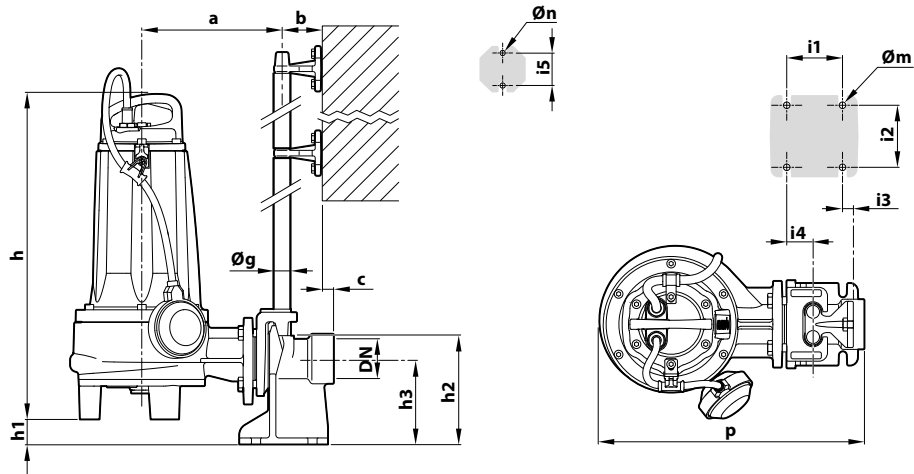
To ensure stability, insert a support every 2 metres along the guide tube

### GUIDE TUBE (AISI 304 stainless steel)

※ 2 metres Ø 3/4" guide tube	Code 54SARTG0052F
※ 3 metres Ø 3/4" guide tube	Code 54SARTG0053F
※ 6 metres Ø 3/4" guide tube	Code 54SARTG0056F

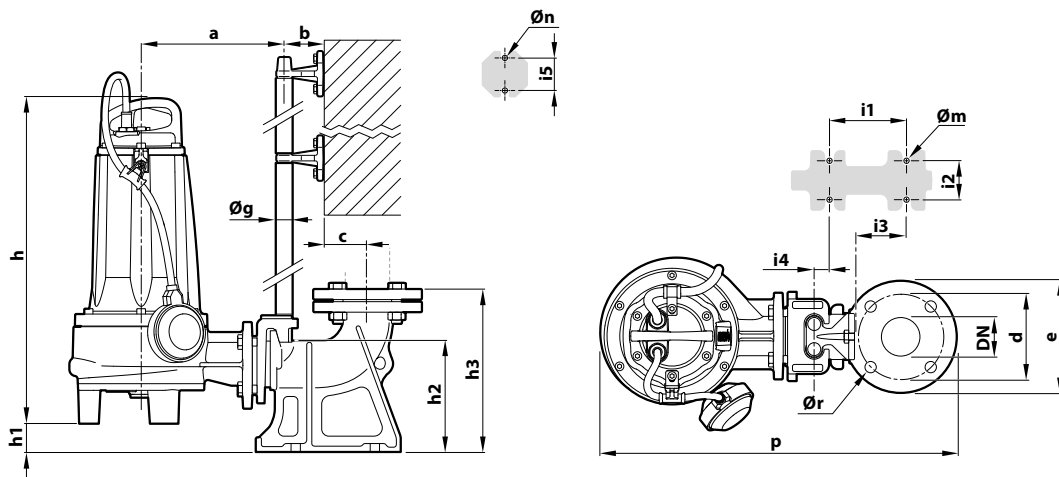


### DIMENSIONS (Version with horizontal outlet)



TYPE		PORT DN	Solid bodies	DIMENSIONS mm														
Single-ph.	Three-ph.			a	b	c	p	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn
TRm 0.75	TR 0.75	2"	Ø 7 mm	212	61	17	395	50	165	130	85	94	16	40	50	¾"	10	10
TRm 0.9	TR 0.9																	
TRm 1.1	TR 1.1																	
TRm 1.3	TR 1.3																	
TRm 1.5	TR 1.5	2"	Ø 7 mm	215	61	17	400	42.5	165	130	85	94	16	40	50	¾"	10	10
-	TR 2.2																	

### DIMENSIONS (Version with vertical delivery)



TYPE		PORT DN	Solid bodies	DIMENSIONS mm																	
Single-ph.	Three-ph.			a	b	c	d	e	p	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn	Ør
TRm 0.75	TR 0.75	2½"	Ø 7 mm	206	61	51.5	125	165	505	48	163.5	215.5	120	72	62	3	50	¾"	14	10	18
TRm 0.9	TR 0.9																				
TRm 1.1	TR 1.1																				
TRm 1.3	TR 1.3																				
TRm 1.5	TR 1.5	2½"	Ø 7 mm	211	61	51.5	125	165	514	40	163.5	215.5	120	72	62	3	50	¾"	14	10	18
-	TR 2.2																				

# SEWAGE LIFTING SYSTEM (TRITUS 2.2 AP - 3 AP - TR3 - TR4)

## VERSION WITH HORIZONTAL DELIVERY AND 3/4" GUIDE PIPES

For TR 2.2 AP, 3 AP, 3, 4	Code ASSPTRITUS61	DN 2"
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※ Kit consisting of:



Coupling foot



Guide rail



Support for guide tubes



## VERSION WITH VERTICAL DELIVERY AND 3/4" GUIDE PIPES

For TR 2.2 AP, 3 AP, 3, 4	Code ASSPTRITUS61V	DN 2 1/2"
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※ Kit consisting of:



Coupling foot complete with counterflange



Guide rail



Support for guide tubes



## ● ACCESSORIES AVAILABLE FOR ORDER

### RUNNING GUIDE

※ For TR 2.2 AP, 3 AP, 3, 4	Code ASSFL014
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Complete with screws and seals

### GUIDE TUBE SUPPORT

※ For Ø 3/4 " guide tubes	Code 859SV340INTFA
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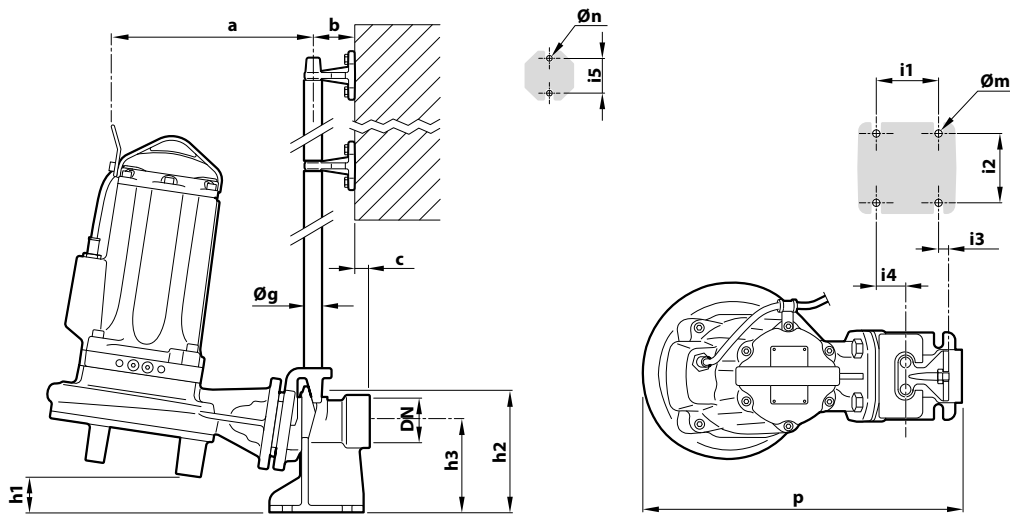
To ensure stability, insert a support every 2 metres along the guide tube

### GUIDE TUBE (AISI 304 stainless steel)

※ 2 metres Ø 3/4" guide tube	Code 54SARTG0052F
※ 3 metres Ø 3/4" guide tube	Code 54SARTG0053F
※ 6 metres Ø 3/4" guide tube	Code 54SARTG0056F

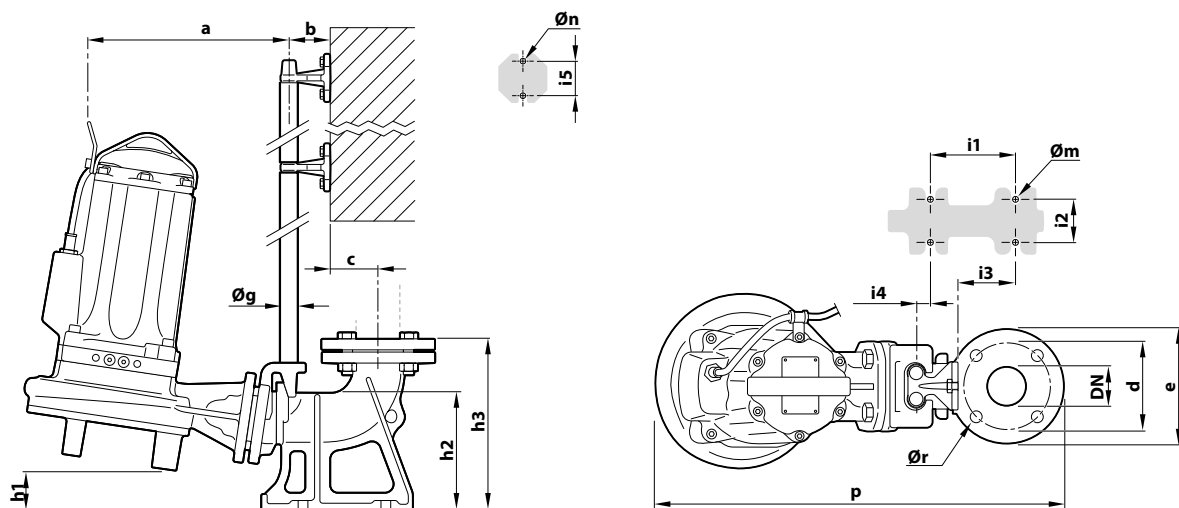


### DIMENSIONS (Version with horizontal outlet)



TYPE	PORT DN	Solid bodies	DIMENSIONS mm																
			a	b	c	p	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn		
TR 2.2 AP	2"	Ø 7 mm	228																
TR 3 AP			238	61	17	455	71	165	130	85	94	16	40	50	¾"	10	10		
TR 3																			
TR 4																			

### DIMENSIONS (Version with vertical delivery)



TYPE	PORT DN	Solid bodies	DIMENSIONS mm																		
			a	b	c	d	e	p	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn	Ør	
TR 2.2 AP	2½"	Ø 7 mm	225																		
TR 3 AP			235	61	51.5	125	165	569	69	163.5	215.5	120	72	62	3	50	¾"	14	10	18	
TR 3																					
TR 4																					

# SEWAGE LIFTING SYSTEM (TR5 - TR6)

## VERSION WITH VERTICAL DELIVERY AND 2" GUIDE PIPES

For <b>TR5, TR6</b>	Cod. ASSPVX50V	DN <b>3"</b>
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※ **Kit consisting of:**



Coupling foot complete with counterflange



Guide rail



Support for guide tubes



## ● ACCESSORIES AVAILABLE FOR ORDER

### RUNNING GUIDE

※ For TR5, TR6	Code ASSFL050
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Complete with screws and seals

### GUIDE TUBE SUPPORT

※ For Ø 2" guide tubes	Code 859SV349INTFA
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**For reasons of stability, interpose a support every 3 metres (recommended)**

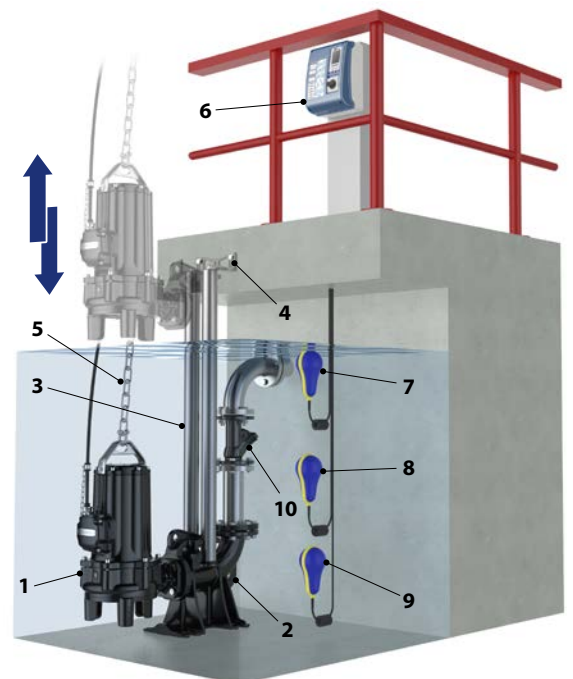
### GUIDE TUBE (AISI 304 stainless steel)

※ 3 metres Ø 2" guide tube	Code 54SARTG0063F
※ 6 metres Ø 2" guide tube	Code 54SARTG0066F

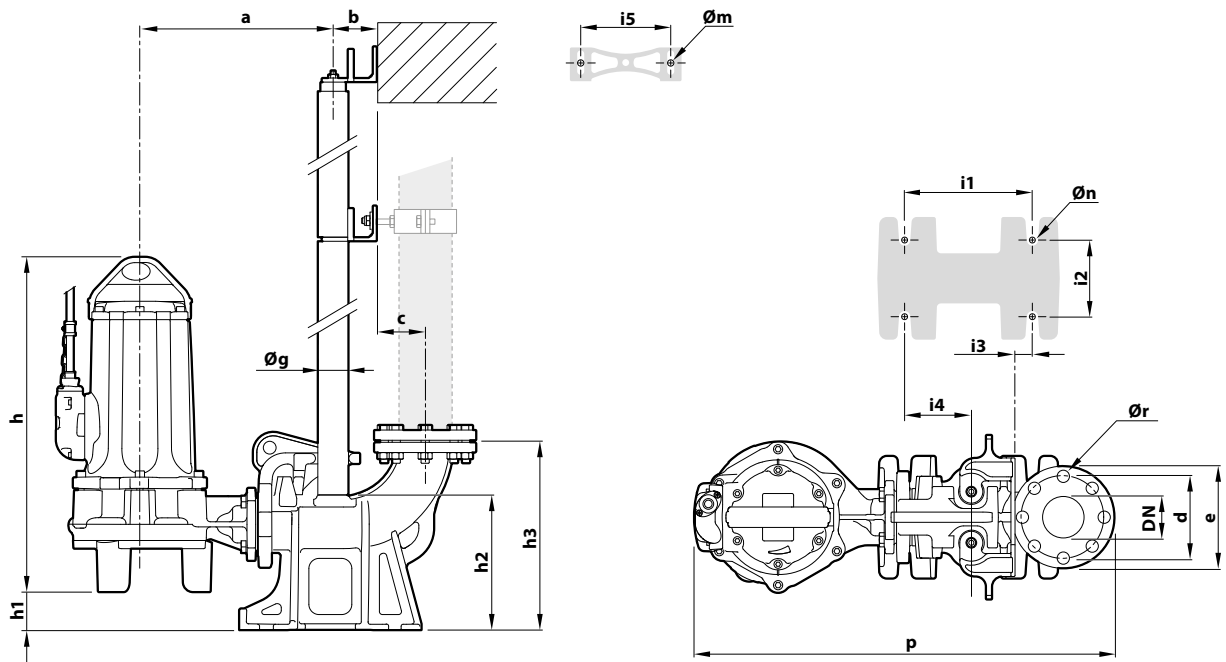


## Typical installation

1. Pump
2. Pump Base
3. Guide tube
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



TYPE	PORT DN	DIMENSIONS mm																
		a	b	c	p	h	h1	h2	h3	i1	i2	i3	i4	i5	Øg	Øm	Øn	Ør
TR 5	3"	380	85	95	825	656	75	264	392	250	150	34	130	187	2"	10	16	18
TR 6																		