

Submersible Waste Water Pump

Ama-Drainer 4../5..

Type Series Booklet



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Type Series Booklet Ama-Drainer 4../5..

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Building Services: Drainage

Drainage Pumps / Waste Water Pumps

Ama-Drainer 4../5..



Main applications

- Drainage
- Disposal
- Drainage systems
- Lowering groundwater levels
- Maintaining groundwater levels
- Draining of pits, shafts, etc.

Fluids handled

Variant A (standard variant)

- Chemically neutral waste water
- Slightly contaminated waste water (up to 40 °C max.)
- Wash water (up to 90 °C max. for short periods $t \leq 3$ minutes)

Free passage 10/11 mm:

- Solid particles with a particle size of up to 10 or 11 mm

Free passage 35 mm:

- Waste water containing long fibres and stringy material
- Solid particles with a particle size of up to 35 mm

Variant C (for aggressive water)

In addition to standard variant:

- Swimming pool water¹⁾
- Brackish water
- Seawater

- Water containing salt
- Aggressive fluids
- Condensate from heat recovery applications

Variant R (for water containing oil / oil emulsions)

In addition to standard variant:

- Oil emulsions and cutting oils
- Waste water containing oil

Operating data

Operating properties

Characteristic	Value	
Flow rate	Q [m ³ /h]	≤ 50
	Q [l/s]	≤ 14
Head	H [m]	≤ 24
Fluid temperature	T [°C]	≤ +40 (continuous duty)
		≤ +90 (short-time duty, ≤ 3 minutes)
Immersion depth	ET [m]	≤ 7

Design details

Design

- Fully floodable submersible motor pump
- Close-coupled design
- Single-stage
- To EN 12050-2
- Vertical discharge nozzle
- With or without level control

Installation

- Vertical installation
- Wet-installed transportable model
- Wet-installed stationary model

Drive

- Motor winding to IEC 60038
- Motor design to EN 60043 T1/IEC 34-1
- Thermal class F
- DOL starting
- Enclosure IP68 (permanently submerged) to EN 60529 / IEC 529

Ama-Drainer NE/SE 10/35:

- AC motor
- Integrated temperature switch
- 10-metre power cable
- Shockproof plug

Ama-Drainer SD 10/11/35:

1) Swimming pool water (0.4 to 1.4 mg/l free chlorine, max. 0.6 mg/l combined chlorine, pH 6.9 to 7.7, water hardness 10 to 30 °dH, max. salt content 7 g/l)

- Three-phase motor
- Integrated temperature switch
- 10-metre power cable
- CEE plug (3L+PE+N) with motor contactor and phase inverter

Ama-Drainer ND 10/11/35:

- Three-phase motor
- Integrated temperature switch
- 10-metre power cable with free cable end and protective cap

Shaft seal

- Pump end, 1 bi-directional mechanical seal
- Drive end: 1 shaft seal ring
- Liquid reservoir between the seals for cooling and lubrication

Impeller type

- Open multi-vane impeller
- Free-flow impeller

Bearings

- Maintenance-free
- Grease-packed rolling element bearings sealed for life

Designation

Example: Ama-Drainer A 4 22 S D / 10 K

Designation key

Code	Description	
Ama-Drainer	Type series	
A	Material variant	
	A	Standard variant
	C	Variant for aggressive water
	R	Variant for water containing oil / oil emulsions
4	Nominal discharge nozzle diameter	
	4	~ 40 mm (G 1 1/2)
	5	~ 50 mm (G 2)
22	Motor rating [kW x 10]	
	05	0.55 kW
	07	0.75 kW
	11	1.1 kW
	15	1.5 kW
	22	2.2 kW
S	Float switch	
	S	With float switch
	N	Without float switch
D	Motor	
	D	Three-phase motor
	E	Single-phase alternating current
10	Free passage [mm]	
	10	10 mm
	11	11 mm
	35	35 mm
K	Cooling jacket	
	K	With cooling jacket
	- ²⁾	Without cooling jacket

2) Blank

Materials
Variant A

Component	4../10	4../35	5../10 K	522../11
Pump casing	Chrome nickel steel (1.4301)			Grey cast iron EN-GJL-250
Suction cover	Chrome nickel steel (1.4301)			Grey cast iron EN-GJL-250
Volute	Acrylonitrile butadiene styrene copolymer (ABS)			-
Impeller	Polyamide (PA)			
Pump foot	Polypropylene (PP)	Chrome nickel steel (1.4301)	Polypropylene (PP)	Polyethylene (PE)
O-rings	Acrylonitrile butadiene rubber (NBR)			
Mechanical seal	Silicon carbide (SiC/SiC)			
Stator case	Chrome nickel steel (1.4301)			
Rotor shaft	Chrome steel (1.4021)			
Motor power cable	Polychloroprene rubber (CR)			
Float	Polypropylene (PP)			
Cooling jacket	-	-	Polyoxymethylene (POM)	-
Oil supply	Liquid paraffin (environmentally friendly)			

Variant C

Component	4../35	5../10 K	522../11
Pump casing	Chrome nickel molybdenum steel (1.4401)		Chrome nickel molybdenum cast steel (1.4408)
Suction cover	Chrome nickel molybdenum steel (1.4401)		Chrome nickel molybdenum cast steel (1.4408)
Volute	Acrylonitrile butadiene styrene copolymer (ABS)		-
Impeller	Polyamide (PA)		
Pump foot	Polypropylene (PP)		Polyethylene (PE)
O-rings	Acrylonitrile butadiene rubber (NBR)		
Mechanical seal	Silicon carbide (SiC/SiC)		
Stator case	Chrome nickel molybdenum steel (1.4401)		
Rotor shaft	Chrome nickel molybdenum steel (1.4571)		
Motor power cable	Polychloroprene rubber (CR)		
Float	Polypropylene (PP)		
Cooling jacket	-	Polyoxymethylene (POM)	-
Oil supply	Liquid paraffin (environmentally friendly)		

Variant R


Component	5../10 K	522../11
Pump casing	Chrome nickel steel (1.4301)	Grey cast iron EN-GJL-250
Suction cover	Chrome nickel steel (1.4301)	Grey cast iron EN-GJL-250
Volute	Acrylonitrile butadiene styrene copolymer (ABS)	-
Impeller	Polyamide (PA)	
Pump foot	Polypropylene (PP)	
O-rings	Fluorocarbon rubber (FPM)	
Mechanical seal	Silicon carbide (SiC/SiC)	
Stator case	Chrome nickel steel (1.4301)	
Rotor shaft	Chrome steel (1.4021)	
Motor power cable	Polyurethane (PUR)	
Float	Polypropylene (PP)	
Cooling jacket	Polyoxymethylene (POM)	-
Oil supply	Liquid paraffin (environmentally friendly)	

Product benefits

- Ready-to-connect, easy installation and commissioning
- Reliable shaft sealing by SiC/SiC mechanical seal with good dry-running characteristics, with oil reservoir
- Maintenance-free with grease-packed bearings sealed for life

Certification

Overview

Label	Effective in:	Comment
	Europe	-

Overview of product features / selection tables
Overview of fluids handled

The table of fluids handled is a selection aid for different applications. It serves as guidance and is based on long-standing experience. The data are reference values and are not to be considered generally binding recommendations. They shall not be the basis for warranty claims. Please contact your nearest sales branch for in-depth advice.

Table of fluids handled

Fluids handled	Temperature	Percentage	Variant				
			A		C		R
	[°C]	[%]	Free passage				
			10/11	35	10/11	35	10/11
Ammonium chloride NH ₄ Cl	-	10	-	-	X	-	-
Ammonium hydroxide NH ₄ OH	≤ 30	10	X	X	-	-	-
Aluminium sulphate Al ₂ (SO ₄) ₃	≤ 40	10	-	-	X	-	-
Antifrogen-water mixture	-	-	X	X	-	-	-
Ethylene glycol	-	-	X	X	-	-	-
Alkaline cleaning agents	-	-	-	-	3)	3)	-
Barium nitrate	-	-	X	X	-	-	-
Drilling emulsion	-	-	-	-	-	-	X
Brackish water	-	-	-	-	X	X	-
Calcium hydroxide Ca (OH) ₂	≤ 30	5	X	X	-	-	-
Calcium chloride CaCl ₂	≤ 25	5	-	-	X	X	-
Calcium nitrate Ca (NO ₃) ₂	-	10	X	X	-	-	-
Deionised water	-	-	X	X	-	-	-
Landfill leachate	-	-	-	-	3)	3)	-
Disinfecting lye	-	-	-	-	3)	3)	-
Iron(II) nitrate Fe (NO ₃) ₂	-	5	-	-	X	-	-
Iron(II) sulphate Fe (SO ₄)	-	5	-	-	X	-	-
Photographic developers	-	-	-	-	3)	-	-
Vinegar	-	-	-	-	X	-	-
Degreaser	-	-	-	-	3)	3)	-
Liquid fertiliser	-	-	-	-	X	X	-
Antifreeze	-	-	X	X	-	-	-
Fibrous material	-	-	-	X	-	X	-
Fruit juice	-	-	-	-	X	X	-
Galvanic baths	-	-	-	-	3)	3)	-
Fermentation juice	-	-	-	-	-	X	-
Ethylene glycol	-	-	X	X	-	-	-
Potassium carbonate	-	-	X	X	-	-	-
Potassium chloride KCl	≤ 20	3	-	-	X	-	-
Potassium hydroxide KOH	≤ 30	10	X	X	-	-	-
Potassium nitrate KNO ₃	-	10	X	X	-	-	-
Calcium hydroxide (lime water) Ca(OH) ₂	≤ 30	5	X	X	-	X	-
Condensate (from condensing boiler applications)	-	-	-	-	3)	-	-
Waste water from laboratories	-	-	-	-	3)	3)	-
Lemonades	-	-	-	-	X	-	-
Magnesium chloride MgCl ₂	≤ 20	3	-	-	X	-	-
Magnesium sulphate MgSO ₄	-	10	X	X	-	-	-
Milk	-	10	X	X	-	-	-
Lactic acids	-	5	-	-	X	-	-
Whey	-	-	-	-	X	-	-
Sodium chloride NaCl	≤ 20	3	-	-	X	-	-
Sodium hydroxide NaOH	≤ 30	10	X	X	-	-	-
Sodium carbonate Na ₂ CO ₃	-	10	X	X	-	-	-
Sodium nitrate	-	-	X	X	-	-	-
Sodium perborate	-	-	X	X	-	-	-
Sodium sulphate Na ₂ SO ₄	-	10	X	X	-	-	-

3) Contact KSB and provide the relevant analysis as well as the data on temperature and mode of operation.

Fluids handled	Temperature	Percentage	Variant				
			A		C		R
	[°C]	[%]	Free passage				
			10/11	35	10/11	35	10/11
Oil-water emulsion	-	-	-	-	-	-	X
Osmosis	-	-	-	-	-	-	-
▪ Raw water (containing salt/chloride)	-	-	-	-	3)	3)	-
▪ Permeate (low salt content)	-	-	-	-	X	X	-
Paraffin oil	-	-	-	-	-	-	X
Rapeseed oil	-	-	-	-	-	-	X
Cleaning lye / washing lye	≤ 40	≤ 12 ⁴⁾	-	-	X	X	-
Acids, diluted	≤ 20	≥ 5 ⁴⁾	-	-	X	X	-
Silicone oil	-	-	-	-	-	-	X
Silage leachate	-	-	-	-	X	X	-
Soy-bean oil	-	-	X	X	-	-	X
Edible vinegar	-	-	-	-	X	-	-
Edible oil	-	-	-	-	-	-	X
Cutting oil	-	-	-	-	-	-	X
Trisodium phosphate	-	-	X	X	-	-	-
Vaseline	-	-	X	X	-	-	-
Washing machine lye	-	-	X	X	X	X	-
Lye for metal cleaning	-	-	-	-	3)	3)	-
Water	-	-	-	-	-	-	-
▪ Drainage water	-	-	X	X	-	-	-
▪ Fire-fighting water	-	-	X	X	-	-	-
▪ Heating water	-	-	X	X	-	-	-
▪ Boiler water	-	-	X	X	-	-	-
▪ Cooling water	-	-	X	X	-	-	-
▪ Seawater	≤15	-	-	-	X	X	-
▪ Raw water	-	-	-	-	3)	3)	-
▪ Salt water	-	-	-	-	3)	3)	-
▪ Swimming pool water (DIN 19643)	-	-	-	-	X	X	-
▪ Partly desalinated water	-	-	X	X	-	-	-
▪ Fully desalinated water	-	-	-	-	X	X	-
Waste water	-	-	-	-	-	-	-
▪ Electroplating shops	-	-	-	-	3)	3)	-
▪ Bottle washing, crate washing, keg washing	-	-	-	-	X	X	-
▪ Beverage industry, breweries	-	-	-	-	X	X	-
▪ Dairies, winegrowers' cooperatives	-	-	-	-	X	X	-
▪ Emergency pumping (floods)	-	-	-	X	-	X	-
▪ Containing salt (from fish-processing plants)	-	-	-	-	-	X	-
▪ Seawater and river water	-	-	-	X	-	X	-
▪ Car repair shops, car washes	-	-	-	-	-	-	X
▪ Petrol stations	-	-	-	-	-	-	X
▪ Pit drainage (raffinates)	-	-	-	-	-	-	X
▪ Pit drainage (chemically aggressive substances)	-	-	-	-	X	X	-
▪ Wash water containing long fibres and stringy material	-	-	-	X	-	X	-
Citric acid	≤ 10	-	-	-	X	-	-

4) pH

Technical data

Variant A

Designation	Nominal size	Free passage [mm]	P ₁ [kW]	P ₂ [kW]	1~220 - 240 V		3~380 - 415 V		Power cable 10 m		Level control		Mat. No.	[kg]
					≈I _N	≈I _N	H 07RN-F6G1	H 07RN-F3G1	H 07RN-F3G1					
					[A]	[A]			[m]					
Ama-Drainer - variant A (standard variant), particle size 10 mm, without cooling jacket														
A 405 NE/10	G 1 1/2	10	0,90	0,55	4,10	-	-	-	-	✗	-	-	29128651	12,2
A 405 SE/10	G 1 1/2	10	0,90	0,55	4,10	-	-	-	-	✗	0,5	-	29128650	12,7
A 405 ND/10	G 1 1/2	10	0,76	0,55	-	1,70	✗	-	-	-	-	-	29128652	13,8
A 405 SD/10	G 1 1/2	10	0,76	0,55	-	1,70	✗	-	-	-	10	-	29128742	15,1
A 407 NE/10	G 1 1/2	10	1,26	0,75	5,50	-	-	-	-	✗	-	-	29128654	12,2
A 407 SE/10	G 1 1/2	10	1,26	0,75	5,50	-	-	-	-	✗	0,5	-	29128653	12,7
A 407 ND/10	G 1 1/2	10	1,01	0,75	-	1,90	✗	-	-	-	-	-	29128655	13,8
A 407 SD/10	G 1 1/2	10	1,01	0,75	-	1,90	✗	-	-	-	10	-	29128743	15,1
A 411 NE/10	G 1 1/2	10	1,45	1,10	6,55	-	-	-	-	✗	-	-	29128657	14,5
A 411 SE/10	G 1 1/2	10	1,45	1,10	6,55	-	-	-	-	✗	0,5	-	29128656	15
A 411 ND/10	G 1 1/2	10	1,54	1,10	-	2,50	✗	-	-	-	-	-	29128658	13,8
A 411 SD/10	G 1 1/2	10	1,54	1,10	-	2,50	✗	-	-	-	10	-	29128744	15,1
A 415 NE/10	G 1 1/2	10	2,07	1,50	8,95	-	-	-	-	✗	-	-	29128660	14,5
A 415 SE/10	G 1 1/2	10	2,07	1,50	8,95	-	-	-	-	✗	0,5	-	29128659	15
A 415 ND/10	G 1 1/2	10	1,88	1,50	-	3,60	✗	-	-	-	-	-	29128661	15,6
A 415 SD/10	G 1 1/2	10	1,88	1,50	-	3,60	✗	-	-	-	10	-	29128745	16,9
A 422 ND/10	G 1 1/2	10	2,90	2,20	-	4,80	✗	-	-	-	-	-	29128662	15,6
A 422 SD/10	G 1 1/2	10	2,90	2,20	-	4,80	✗	-	-	-	10	-	29128746	16,9
Ama-Drainer - variant A (standard variant), particle size 11 mm, without cooling jacket														
A 522 ND/11	G 2	11	2,90	2,20	-	4,80	✗	-	-	-	-	-	29128865	25
A 522 SD/11	G 2	11	2,90	2,20	-	4,80	✗	-	-	-	10	-	29128866	27
Ama-Drainer - variant A (standard variant), particle size 35 mm, without cooling jacket														
A 405 NE/35	G 1 1/2	35	0,90	0,55	4,10	-	-	-	-	✗	-	-	29128677	13,2
A 405 SE/35	G 1 1/2	35	0,90	0,55	4,10	-	-	-	-	✗	0,5	-	29128676	13,7
A 405 ND/35	G 1 1/2	35	0,76	0,55	-	1,70	✗	-	-	-	-	-	29128678	14,8
A 405 SD/35	G 1 1/2	35	0,76	0,55	-	1,70	✗	-	-	-	10	-	29128752	16,1
A 411 NE/35	G 1 1/2	35	1,45	1,10	6,55	-	-	-	-	✗	-	-	29128680	15,5
A 411 SE/35	G 1 1/2	35	1,45	1,10	6,55	-	-	-	-	✗	0,5	-	29128679	16
A 411 ND/35	G 1 1/2	35	1,54	1,10	-	2,50	✗	-	-	-	-	-	29128681	14,8
A 411 SD/35	G 1 1/2	35	1,54	1,10	-	2,50	✗	-	-	-	10	-	29128753	16,1
A 422 ND/35	G 1 1/2	35	2,90	2,20	-	4,80	✗	-	-	-	-	-	29128682	16,6
A 422 SD/35	G 1 1/2	35	2,90	2,20	-	4,80	✗	-	-	-	10	-	29128754	17,9
Ama-Drainer - variant A (standard variant), particle size 10 mm, with cooling jacket														
A 505 NE/10K	G 2	10	0,90	0,55	4,10	-	-	-	-	✗	-	-	29128664	14,2
A 505 SE/10K	G 2	10	0,90	0,55	4,10	-	-	-	-	✗	0,5	-	29128663	14,7
A 505 ND/10K	G 2	10	0,76	0,55	-	1,70	✗	-	-	-	-	-	29128665	15,8
A 505 SD/10K	G 2	10	0,76	0,55	-	1,70	✗	-	-	-	10	-	29128747	17,1
A 507 NE/10K	G 2	10	1,26	0,75	5,50	-	-	-	-	✗	-	-	29128667	14,2
A 507 SE/10K	G 2	10	1,26	0,75	5,50	-	-	-	-	✗	0,5	-	29128666	14,7
A 507 ND/10K	G 2	10	1,01	0,75	-	1,90	✗	-	-	-	-	-	29128668	15,8
A 507 SD/10K	G 2	10	1,01	0,75	-	1,90	✗	-	-	-	10	-	29128748	17,1
A 511 NE/10K	G 2	10	1,45	1,10	6,55	-	-	-	-	✗	-	-	29128670	16,5
A 511 SE/10K	G 2	10	1,45	1,10	6,55	-	-	-	-	✗	0,5	-	29128669	17
A 511 ND/10K	G 2	10	1,54	1,10	-	2,50	✗	-	-	-	-	-	29128671	15,8
A 511 SD/10K	G 2	10	1,54	1,10	-	2,50	✗	-	-	-	10	-	29128749	17,1
A 515 NE/10K	G 2	10	2,07	1,50	8,95	-	-	-	-	✗	-	-	29128673	16,5
A 515 SE/10K	G 2	10	2,07	1,50	8,95	-	-	-	-	✗	0,5	-	29128672	17
A 515 ND/10K	G 2	10	1,88	1,50	-	3,60	✗	-	-	-	-	-	29128674	17,6
A 515 SD/10K	G 2	10	1,88	1,50	-	3,60	✗	-	-	-	10	-	29128750	18,9
A 522 ND/10K	G 2	10	2,90	2,20	-	4,80	✗	-	-	-	-	-	29128675	17,6
A 522 SD/10K	G 2	10	2,90	2,20	-	4,80	✗	-	-	-	10	-	29128751	18,9

Variant C

Designation	Nominal size	Free passage [mm]	P ₁ [kW]	P ₂ [kW]	1~ 220 - 240 V		3~ 380 - 415 V		Power cable 10 m		Level control	Mat. No.	[kg]
					≈I _N	≈I _N	H 07RN-F6G1	H 07RN-F3G1	H 07RN-F3G1				
					[A]	[A]			[m]				
Ama-Drainer – variant C (for aggressive water), particle size 10 mm, with cooling jacket													
C 505 NE/10K	G 2	10	0,90	0,55	4,10	-	-	-	-	X	-	29128697	14,2
C 505 SE/10K	G 2	10	0,90	0,55	4,10	-	-	-	-	X	0,5	29128696	14,7
C 505 ND/10K	G 2	10	0,76	0,55	-	1,70	X	-	-	-	-	29128698	15,3
C 505 SD/10K	G 2	10	0,76	0,55	-	1,70	X	-	-	-	10	29128755	17,1
C 507 NE/10K	G 2	10	1,26	0,75	5,50	-	-	-	-	X	-	29128700	14,2
C 507 SE/10K	G 2	10	1,26	0,75	5,50	-	-	-	-	X	0,5	29128699	14,7
C 507 ND/10K	G 2	10	1,01	0,75	-	1,90	X	-	-	-	-	29128701	15,3
C 507 SD/10K	G 2	10	1,01	0,75	-	1,90	X	-	-	-	10	29128756	17,1
C 511 NE/10K	G 2	10	1,45	1,10	6,55	-	-	-	-	X	-	29128703	16,5
C 511 SE/10K	G 2	10	1,45	1,10	6,55	-	-	-	-	X	0,5	29128702	17
C 511 ND/10K	G 2	10	1,54	1,10	-	2,50	X	-	-	-	-	29128704	15,3
C 511 SD/10K	G 2	10	1,54	1,10	-	2,50	X	-	-	-	10	29128757	17,1
C 515 NE/10K	G 2	10	2,07	1,50	8,95	-	-	-	-	X	-	29128706	16,5
C 515 SE/10K	G 2	10	2,07	1,50	8,95	-	-	-	-	X	0,5	29128705	17
C 515 ND/10K	G 2	10	1,88	1,50	-	3,60	X	-	-	-	-	29128707	17,6
C 515 SD/10K	G 2	10	1,88	1,50	-	3,60	X	-	-	-	10	29128758	19,5
C 522 ND/10K	G 2	10	2,90	2,20	-	4,80	X	-	-	-	-	29128708	17,7
C 522 SD/10K	G 2	10	2,90	2,20	-	4,80	X	-	-	-	10	29128759	19,6
Ama-Drainer – variant C (for aggressive water), particle size 11 mm, without cooling jacket													
C 522 ND/11	G 2	11	2,90	2,20	-	4,80	X	-	-	-	-	29128693	23,5
C 522 SD/11	G 2	11	2,90	2,20	-	4,80	X	-	-	-	10	29128694	25,5
Ama-Drainer – variant C (for aggressive water), particle size 35 mm, without cooling jacket													
C 405 NE/35	G 1 1/2	35	0,90	0,55	4,10	-	-	-	-	X	-	29128683	15,3
C 405 SE/35	G 1 1/2	35	0,90	0,55	4,10	-	-	-	-	X	0,5	29128684	15,8
C 405 ND/35	G 1 1/2	35	0,76	0,55	-	1,70	X	-	-	-	-	29128685	16,5
C 405 SD/35	G 1 1/2	35	0,76	0,55	-	1,70	X	-	-	-	10	29128686	18,2
C 411 NE/35	G 1 1/2	35	1,45	1,10	6,55	-	-	-	-	X	-	29128687	17,6
C 411 SE/35	G 1 1/2	35	1,45	1,10	6,55	-	-	-	-	X	0,5	29128688	18,1
C 411 ND/35	G 1 1/2	35	1,54	1,10	-	2,50	X	-	-	-	-	29128689	16,5
C 411 SD/35	G 1 1/2	35	1,54	1,10	-	2,50	X	-	-	-	10	29128690	18,3
C 422 ND/35	G 1 1/2	35	2,90	2,20	-	4,80	X	-	-	-	-	29128691	19
C 422 SD/35	G 1 1/2	35	2,90	2,20	-	4,80	X	-	-	-	10	29128692	20,8

Variant R

Designation	Nominal size	Free passage [mm]	P ₁ [kW]	P ₂ [kW]	1~ 220 - 240 V		3~ 380 - 415 V		Power cable 10 m		Level control	Mat. No.	[kg]
					≈I _N	≈I _N	PUR 6x1	PUR 3x1	PUR 3x1				
					[A]	[A]			[m]				
Ama-Drainer – variant R (for water containing oil / oil emulsions), particle size 10 mm, with cooling jacket													
R 505 NE/10K	G 2	10	0,90	0,55	4,10	-	-	-	-	X	-	29128723	14,2
R 505 SE/10K	G 2	10	0,90	0,55	4,10	-	-	-	-	X	0,5	29128722	14,7
R 505 ND/10K	G 2	10	0,76	0,55	-	1,70	X	-	-	-	-	29128724	15,3
R 505 SD/10K	G 2	10	0,76	0,55	-	1,70	X	-	-	-	10	29128760	17,1
R 507 NE/10K	G 2	10	1,26	0,75	5,50	-	-	-	-	X	-	29128726	14,2
R 507 SE/10K	G 2	10	1,26	0,75	5,50	-	-	-	-	X	0,5	29128725	14,7
R 507 ND/10K	G 2	10	1,01	0,75	-	1,90	X	-	-	-	-	29128727	15,3
R 507 SD/10K	G 2	10	1,01	0,75	-	1,90	X	-	-	-	10	29128761	17,1
R 511 NE/10K	G 2	10	1,45	1,10	6,55	-	-	-	-	X	-	29128729	16,5
R 511 SE/10K	G 2	10	1,45	1,10	6,55	-	-	-	-	X	0,5	29128728	17
R 511 ND/10K	G 2	10	1,54	1,10	-	2,50	X	-	-	-	-	29128730	15,3
R 511 SD/10K	G 2	10	1,54	1,10	-	2,50	X	-	-	-	10	29128762	17,1
R 515 NE/10K	G 2	10	2,07	1,50	8,95	-	-	-	-	X	-	29128732	16,5
R 515 SE/10K	G 2	10	2,07	1,50	8,95	-	-	-	-	X	0,5	29128731	17
R 515 ND/10K	G 2	10	1,88	1,50	-	3,60	X	-	-	-	-	29128733	17,6
R 515 SD/10K	G 2	10	1,88	1,50	-	3,60	X	-	-	-	10	29128763	19,5
R 522 ND/10K	G 2	10	2,90	2,20	-	4,80	X	-	-	-	-	29128734	17,7
R 522 SD/10K	G 2	10	2,90	2,20	-	4,80	X	-	-	-	10	29128764	19,6

Designation	Nominal size	Free passage [mm]	P ₁ [kW]	P ₂ [kW]	1~ 220 - 240 V	3~ 380 - 415 V	Power cable 10 m		Level control	Mat. No.	[kg]	
					≈I _N	≈I _N	PUR 6x1	PUR 3x1	PUR 3x1			
					[A]	[A]			[m]			
Ama-Drainer – variant R (for water containing oil / oil emulsions), particle size 11 mm, without cooling jacket												
R 522 ND/11	G 2	11	2,90	2,20	-	4,80	X	-	-	-	29128867	23,5
R 522 SD/11	G 2	11	2,90	2,20	-	4,80	X	-	10	-	29128868	25,5

Characteristic curves

Ama-Drainer 4../5..; n = 2800 rpm; multi-vane impeller

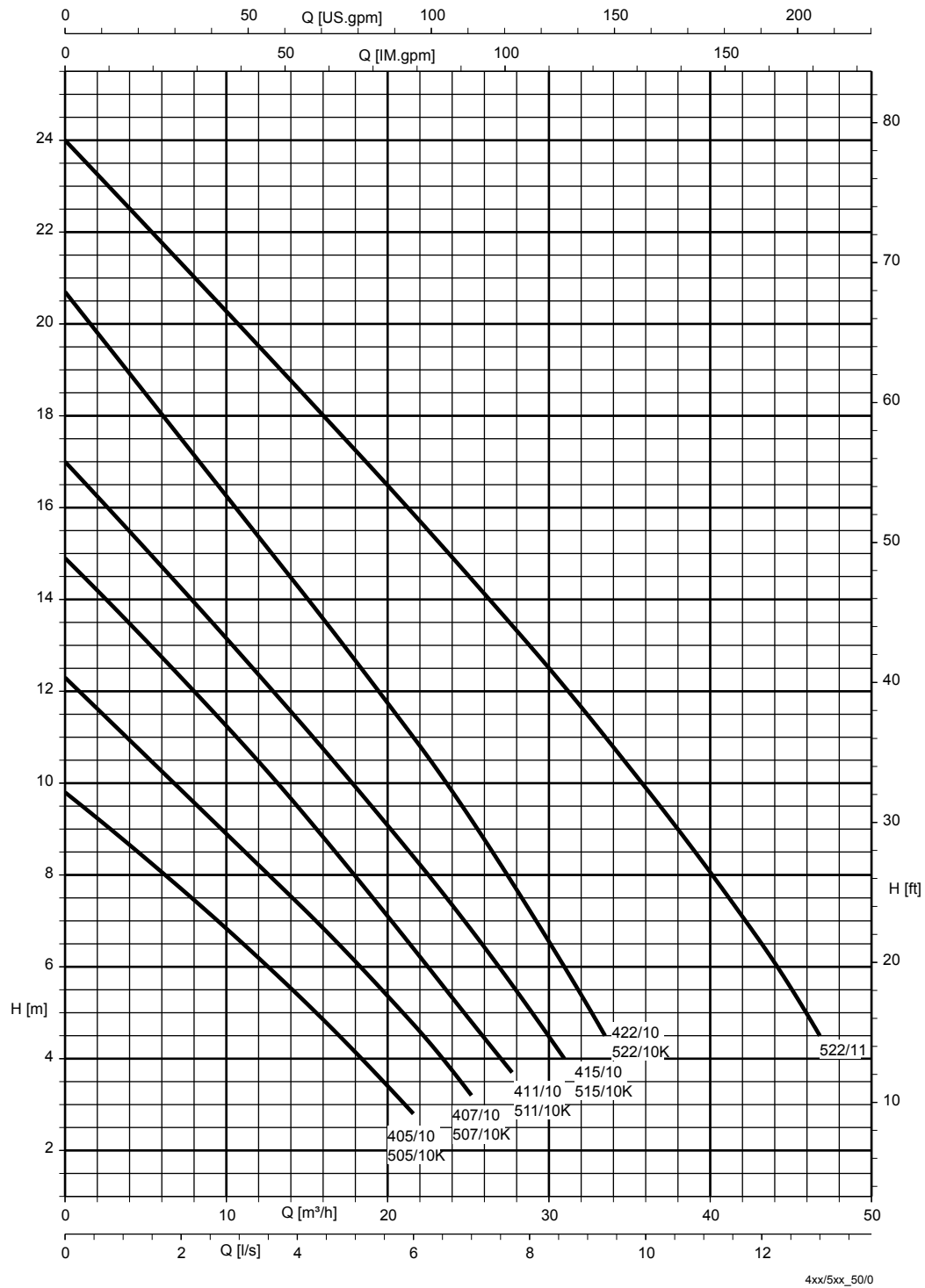


Fig. 1: Free passage: 405/407/411/415/422/505/507/511/515 = 10 mm, 522 = 11 mm
Performance tolerance to ISO 2548 Class C (water under standard conditions)

Ama-Drainer 4..; n = 2800 rpm; F impeller

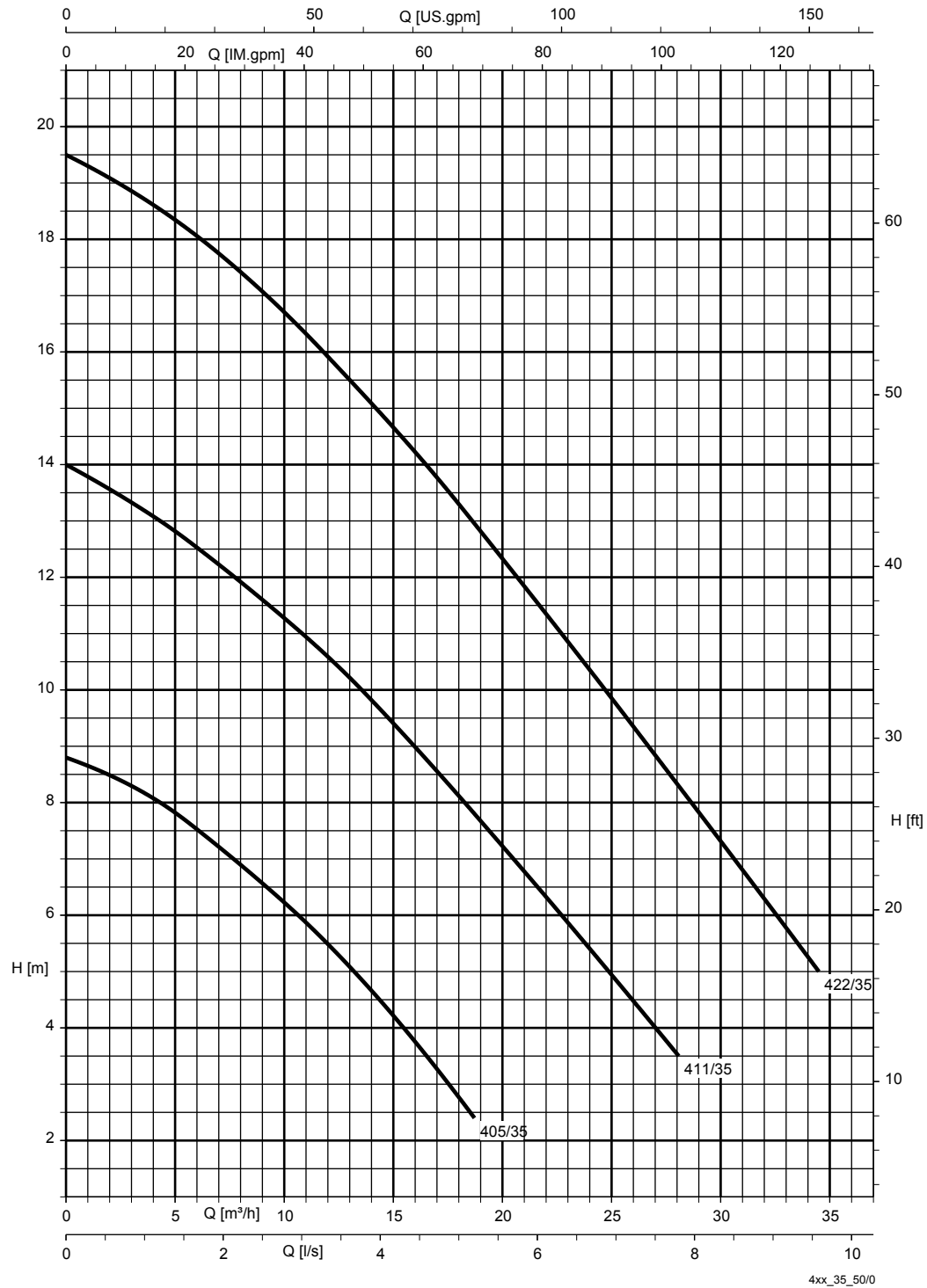
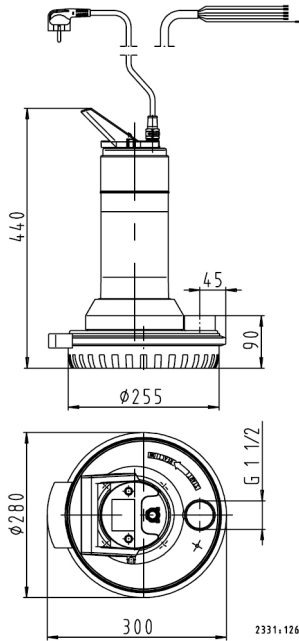


Fig. 2: Free passage: 405/411/422 = 35 mm
Performance tolerance to ISO 2548 Class C (water under standard conditions)

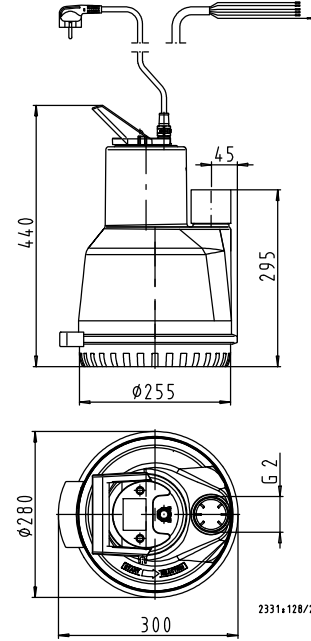
Dimensions and connections

Outline drawings

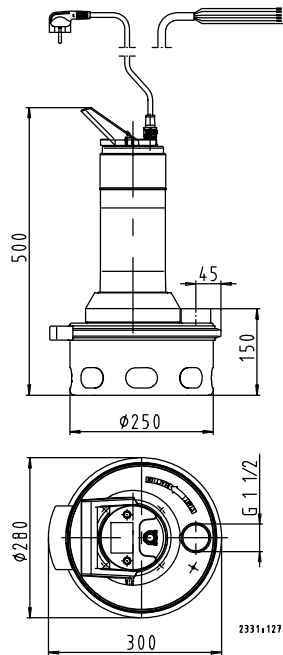
4../10 without cooling jacket



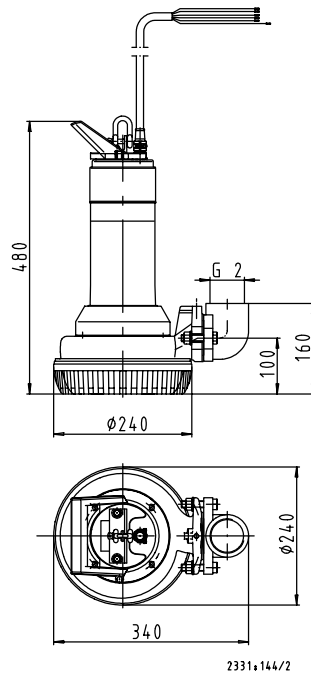
5../10K with cooling jacket



4../35 without cooling jacket



522/11 without cooling jacket



Single pumps

Ama-Drainer 4..SE/10

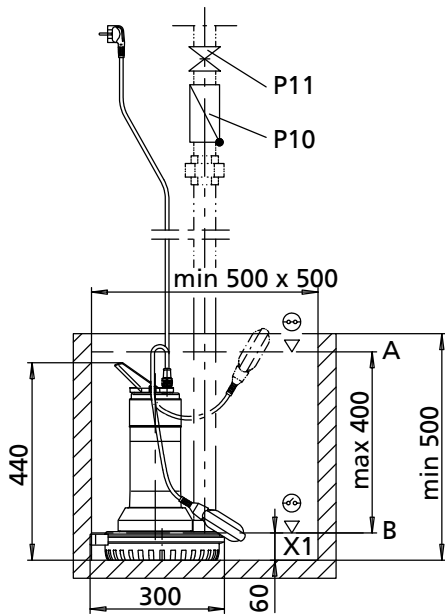


Fig. 3: Outline drawing Ama-Drainer 4..SE/10 without cooling jacket

A	Start-up level
B	Stop level
P 10	Swing check valve
P11	Gate valve
X1	Residual water level

Ama-Drainer 5..SD/10 K

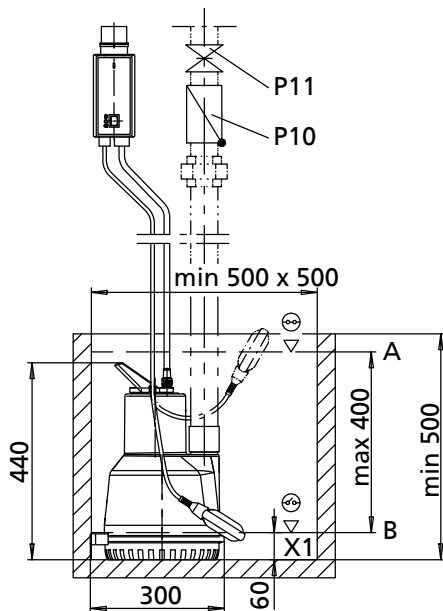


Fig. 4: Outline drawing Ama-Drainer 5..SD/10 K with cooling jacket

A	Start-up level
B	Stop level
P 10	Swing check valve
P11	Gate valve
X1	Residual water level

Ama-Drainer 4..SD/35

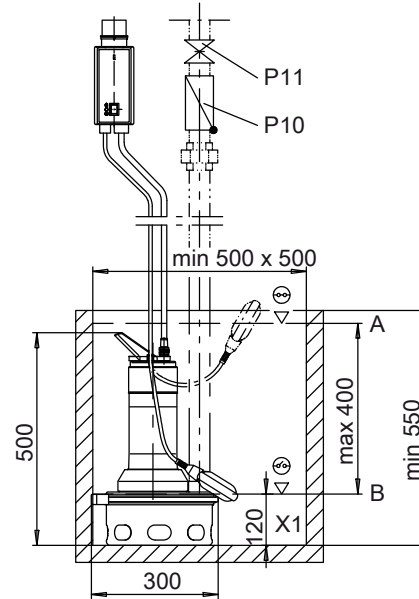


Fig. 5: Outline drawing Ama-Drainer 4..SD/35 without cooling jacket

A	Start-up level
B	Stop level
P 10	Swing check valve
P11	Gate valve
X1	Residual water level

Ama-Drainer 522/11

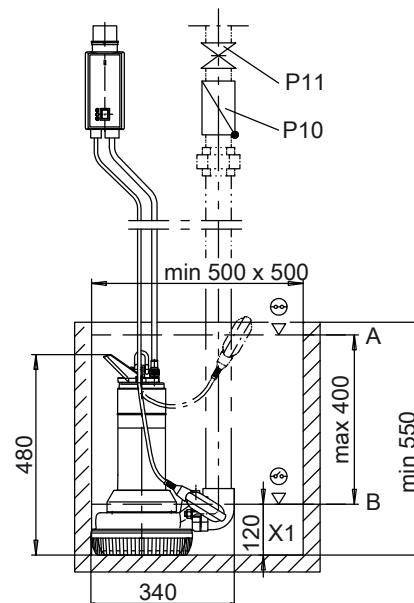


Fig. 6: Outline drawing Ama-Drainer 522/11 without cooling jacket

A	Start-up level
B	Stop level
P 10	Swing check valve
P 11	Gate valve
X1	Residual water level

Examples of transportable models

Ama-Drainer 4..NE/10

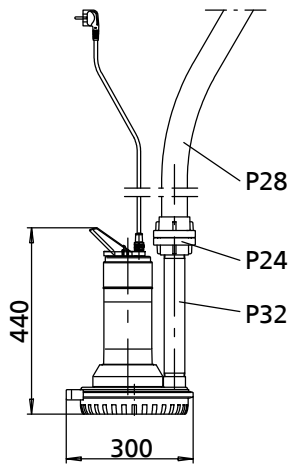


Fig. 7: Outline drawing Ama-Drainer 4..NE/10 without cooling jacket

P 24	Storz rigid coupling
P 28	Plastic hose
P 32	Pipe extension

Ama-Drainer 5..NE/10 K

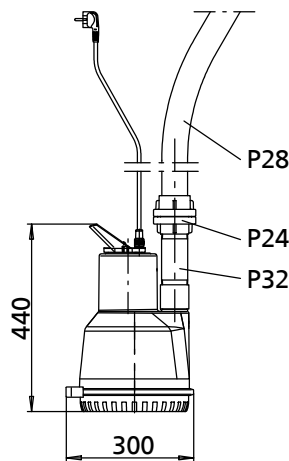


Fig. 8: Outline drawing Ama-Drainer 5..NE/10 K with cooling jacket

P 24	Storz rigid coupling
P 28	Plastic hose
P 32	Pipe extension

Ama-Drainer 522 ND/11

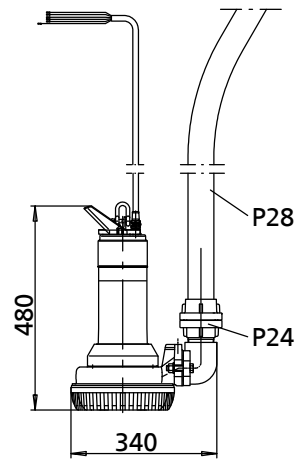


Fig. 9: Outline drawing Ama-Drainer 522 ND/11 without cooling jacket

P 24	Storz rigid coupling
P 28	Plastic hose

Examples of stationary installation

Ama-Drainer 522 ND/11 with guide hoop

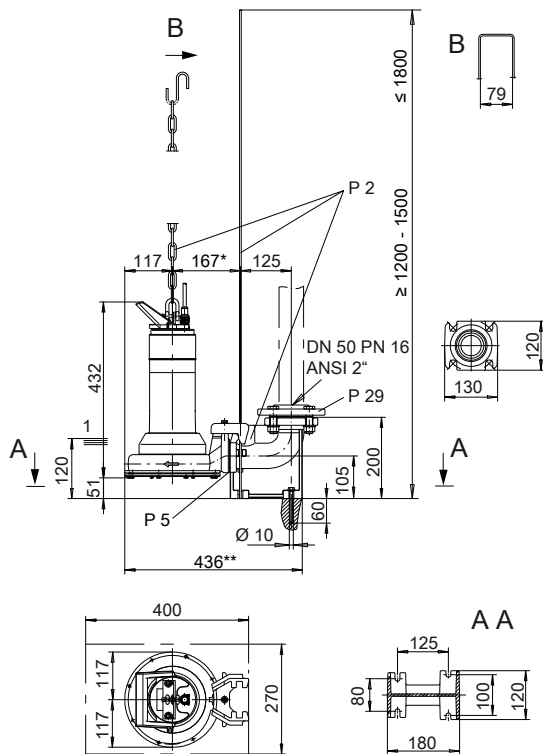


Fig. 10: Outline drawing Ama-Drainer 522 ND/11 with guide hoop

*	When using flange adapter P 5: 217 mm
**	When using flange adapter P 5: 486 mm

Overview of connections

Connection	Description
1	Lowest stop level for automatic operation
P 2	Guide hoop arrangement
P 5 ⁵⁾	Flange adapter for stabilising the pump position during start-up
P 29	Threaded flange

Ama-Drainer 522 ND/11 with guide wire

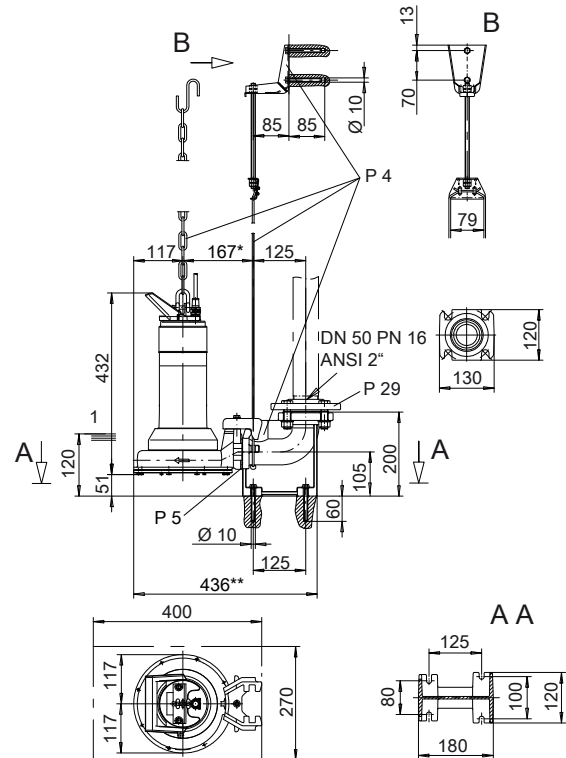


Fig. 11: Outline drawing Ama-Drainer 522 ND/11 with guide wire

*	When using flange adapter P 5: 217 mm
**	When using flange adapter P 5: 486 mm

Overview of connections

Connection	Description
1	Lowest stop level for automatic operation
P 4	Guide wire arrangement
P 5 ⁶⁾	Flange adapter for stabilising the pump position during start-up
P 29	Threaded flange

5) Not shown in drawing
6) Not shown in drawing

Installation example of a dual-pump station

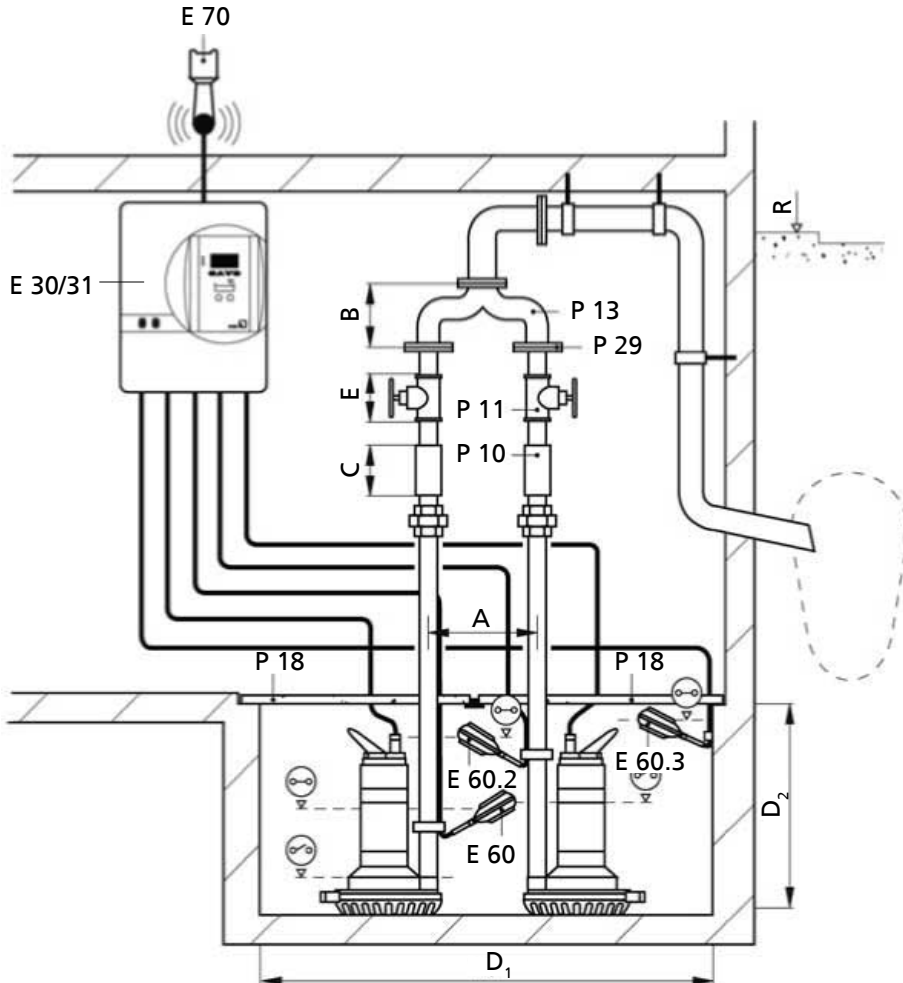


Fig. 12: Position of float switches in a dual-pump station

P 10	Swing check valve
P 11	Gate valve
P 13	Y-pipe
P 18	Cover plate
P 29	Threaded flange
E 5	AS 5 alarm switchgear
E 5/2	Horn
E 12 / E13	Control unit
E 14	Float switch, normal water level
E 14/2	Float switch, high water level
E 14/3	Alarm contactor
R	Flood level

Dimensions and weights

Size	A	B	C	D ₁	D ₂	E	[kg]
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	
Ama-Drainer 4../10	275	190	130	1060 x 500	500	55	16
Ama-Drainer 4../35	275	190	130	1060 x 500	500	60	17
Ama-Drainer 5../10 K	300	210	130	1060 x 500	500	55	17
Ama-Drainer 522/11	300	210	130	1060 x 500	500	55	24