

OPERATING LIMITS

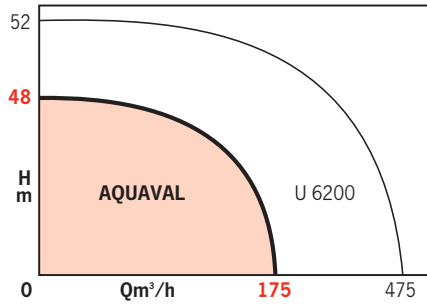
Flow rates up to:	175 m³/h
Head up to:	48 mCE
Temperature range:	+3° to 60°C
Max.immersion depth:	12 m
Discharge port ND:	32 to 100
Throughput particle size:	see table

AQUAVAL 56

SITE SUBMERSIBLE PUMPS

Drainage - Dewatering

50 Hz



APPLICATIONS

Drainage of all types of sites:

- construction sites,
- civil engineering sites,
- lowering of groundwater level,
- road tunnels...

Dewatering of sludge waste water (except sewage water):

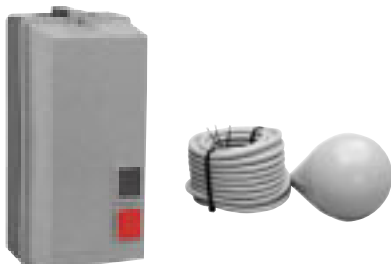
- rain water,
- mud-laden water,
- sand-laden water, mud deposit...



- **AQUAVAL 56-1 M or T4**, 1-phase or 3-phase motor



- **AQUAVAL 56-50 A-T4**, axial discharge for pumping in small-dia. bore holes (groundwater level lowering).



- **439 E 24 circuit-breaker** for protection, automatic On/Off control via **float switches**



- **AQUAVAL 56-32 T4** - 400-V 3-phase motor

AQUAVAL 56

ADVANTAGES

- Submersible.
- Mobile or permanent installation.
- Exceptional ruggedness.
- Continuous unmonitored operation.
- Intermittent dry operation without endangering the motor.
- Very low maintenance.

DESIGN

• Hydraulic part

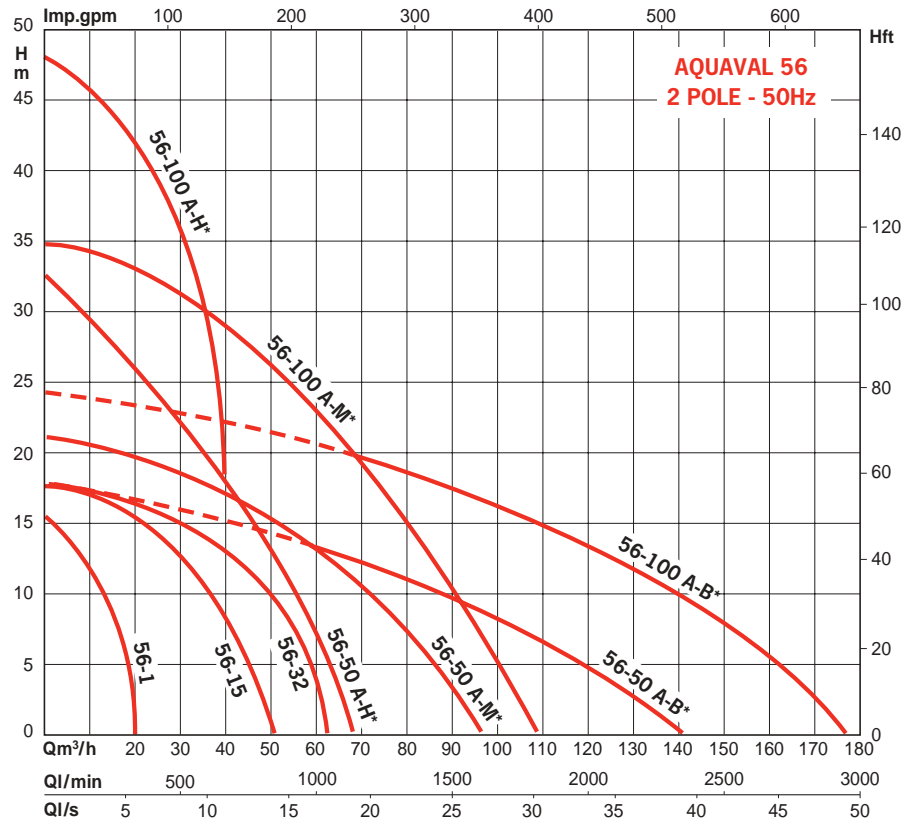
Submersible, single-block.
Radial or axial discharge.
Common shaft, pump-motor.
Single-stage, with wide-passageway closed impeller (except 56-1 = half-open impeller) fitted with a front wear bush and a rear wear plate (except 56-1 and 56-15).
Pump-motor intermediate chamber, lubricating both mechanical seals.

• Electric motor

Waterproof, oil-and pumped water-cooled (except 56-1).

Speed : 2900 rpm
Winding 3-phase : 230 - 400 V
1-phase : 230 V
Frequency : 50 Hz
(option 60 Hz)
Insulating category : B
Protection index : IP 68
Conformity : EN 809

HYDRAULIC PERFORMANCES AT 2900 RPM



*Hydraulic characteristics obtained by impeller replacement at low (B), average (M) or high (H) pressure: the impeller is interchangeable between the types of a same product range.

STANDARD CONSTRUCTION

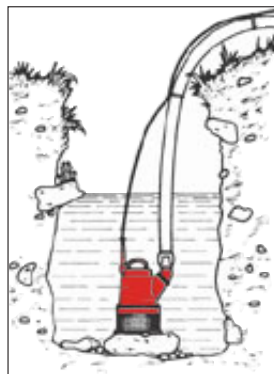
Main parts	Material
Casing	FGL 250 cast iron
Impeller	FGL 250 (or GS) cast iron
Shaft	Stainless steel
Motor frame	Aluminium
Upper mech.seal	Cast material/Carbon
Lower mech.seal	Hard metal/Hard metal

IDENTIFICATION

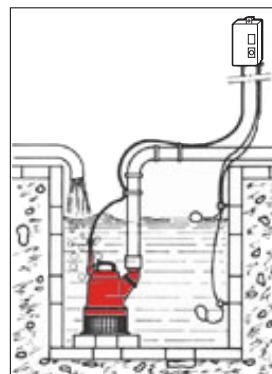
AQUAVAL 56-100 A-T4-H

Range code for submersible site pumps _____
Number of HPs X10 _____
Axial suction model _____
M = 1-phase 230 V _____
T4 = 3-phase 400 V _____
T2 = 3-phase 230 V (upon request) _____
Model of impeller (B, M or H) fitted on pumps 56-50 A and 56-100 A _____

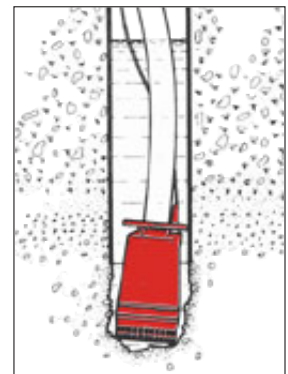
INSTALLATION DIAGRAMS



The large base area provides good stability, even on soft or uneven ground.

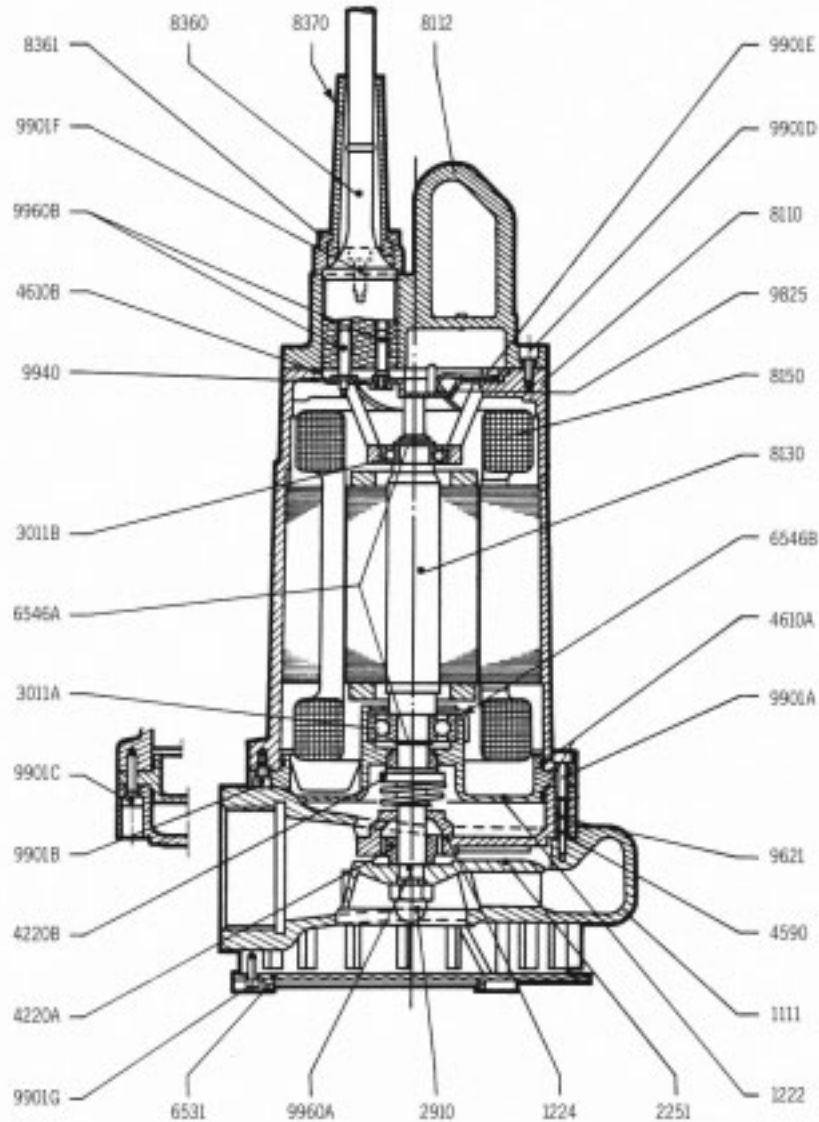


Permanent installation with automatic on/off control via "Nivos430" or "Euroflot423" and 439 E24 circuit-breaker.



Types 56-50A and 56-100A with axial discharge, for pumping in small-diameter bore holes. May be hung to the discharge piping.

SECTIONAL DRAWING (model shown: 56-1)



PARTS LIST

- 1111 - Pump casing.
- 1222 - Lower bearing.
- 1224 - Discharge bottom.
- 2251 - Semi-open impeller.
- 2910 - Impeller mounting cap nut.
- 3011A - Lower ball bearing.
- 3011B - Upper ball bearing.
- 4220A - Lower mechanical seal.
- 4220B - Upper mechanical seal.
- 4590 - Gasket (pump casing).
- 4610A - O-rings (bottom-bearing-motor).
- 4610B - O-ring (motor cover).

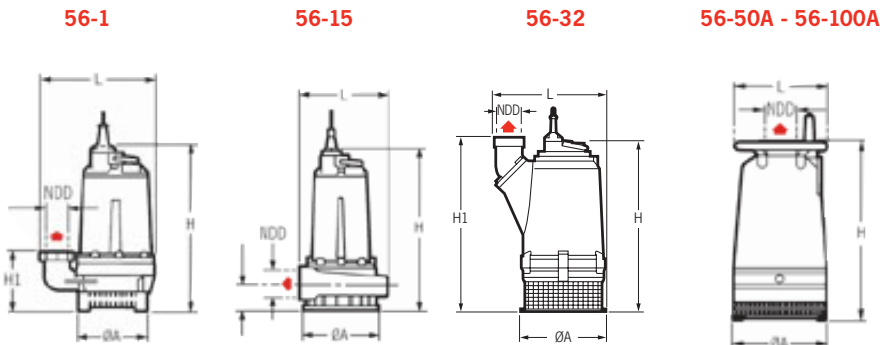
- 6531 - Suction bottom support-strainer.
- 6546A - Circlips (bearings).
- 6546B - Special bush (bearing attachment).
- 8110 - Motor casing.
- 8112 - Motor cover with handle.
- 8130 - Rotor shaft.
- 8150 - Stator.
- 8360 - Motor cable with female connectors.
- 8361 - Cable flange.
- 8370 - Grommet.
- 9621 - Oil chamber plug.
- 9825 - Motor terminal strip.

- 9901A - Motor casing attachment screw.
- 9901B - Securing screw (bearing motor).
- 9901C - Securing screw (casing-bearing-motor).
- 9901D - Securing screw (motor cover).
- 9901E - Earthing screw.
- 9901F - Cable flange securing screw.
- 9901G - Suction bottom support sec. screw.
- 9940 - Washer beneath connecting pin.
- 9960A - Impeller pin.
- 9960B - Male connectors with threaded socket.

(*) Recommended spare parts

AQUAVAL 56

ELECTRICAL DATA AND DIMENSIONS



ORDER REFERENCE	power (P2) kW	M O T O R					P U M P							
		nominal current in A at			oil capacity intermediate-chamber	oil capacity motor	NDD	H	L	H1	ØA	mass approx.	through-put particle-size	connec- tion for tube
		1 x 230V	3 x 230V	3 x 400V	litres	litres	mm	mm	mm	mm	kg	mm	Ø	
56-1-M or T4	0.75	5.5	3.8	2.2	0.2	0.8	1 1/4"	330	228	124	162	11.5	10 x 10	33-42
56-15 T4	1.1	-	6	3.5	0.25	1	2"	370	195	60	195	17	10 x 10	50-60
56-32 T4	2.35	-	8.5	4.9	0.3	1.3	3**	450	291	440	242	29	5 x 8	80-90
56-50A-T4H-M or B	3.7	-	14.8	8.5	1.4	3	4"	570	292	-	292	53	8 x 25	102-104
56-100A-T4H-M or B	7.5	-	26.5	15.5	1.4	3	4"	650	292	-	292	66	8 x 25	102-104

* (threaded)

FEATURES

a) Electrical

- All 3-phase types at 230 V or 400 V 50 Hz, 1-phase 56-1 type at 230 V 50 Hz.
- Motor protection essential via overload cut-out or Yn4000 with level regulators.

WHEN ORDERING, SPECIFY*:

3-PHASE 230 V (T2) or 3-PHASE 400 V (T4).

* when not specified when ordering, the pump is always delivered for connection to 400-V, 3-phase power supply (T4).

b) Installation

- Fixed or mobile installation. Vertical upwards discharge, except type 56-15 with discharge.

Installation connection:

- Quick-fitting unions for flexible hose (or pipe for fixed installation).

c) Packaging

- Delivered with electrical cable (5-m long) with plug for connection to the motor.
- Oil-filled intermediate chamber and motor (transformer oil).

d) Maintenance

- Replacement of recommended (•) wear spare parts.

OPTIONS & ACCESSORIES



Yn7112
Control and protection box

	1 pump 1-phasebox	2 pumps 1-phasebox	2 pumps 3~230V box	2 pumps 3~400V box
56-1	Yn7112 ref.4061607	Yn4212 ref.4035802		
56-15			Yn4212 ref.4061607	Yn4205 ref.4035803
56-32			Yn4212 ref.4061607	Yn4212 ref.4061607
	1 pump 3~230V	2 pumps 3~230V	1 pump 3~400V	2 pumps coffret 3~400V
56-50	Yn5116E ref.2521223	Yn5216E ref.2521224	Yn4112 ref.4061607	Yn4212 ref.4061607
56-100	Yn5132E ref.2521227	Yn5232E ref.2521228	Yn5120E ref.2521225	Yn5220E ref.2521226

- Yn4000 electrical control and protection panel or
- Circuit breaker protection.
- Non-return valves.
- Isolating valves.
- Float switch.
- PVC or textile structure piping.

Yn4000



See specific brochure.

Operates with 3 or 4 float switches, or 2 or 3 regulators.

Single-phase 230 V or three-phase 400 V (switchable to single-phase 230 V).



CIRCUIT-BREAKER PROTECTION

Clear waste water



EUROFLOT 423

Sludge waste water

NIVO430

Circuit breaker protection motor with 24-V transformer

439 E24 Type - Waterproof - 400 V, 3-phase

- Pump automatic float switch start/stop for clear and sludge waste water.

type of pump	power supply voltage	ORDER REFERENCE
56-1-T	3~400 V	439-D-09Q07
56-15-T	3~400 V	439-D-09Q08
56-32-T	3~400 V	439-D-09Q10
56-50-T	3~400 V	439-D-09Q14
56-100-T	3~400 V	Yn5116E/Yn5216E ref.2521223/2521224