

ARIAMAT AUTOMATIC AIR FEEDER



ARIAMAT
AR 300E
AR 1000E
AR 2000E
Complete with
connections and 1 m
polyethylene pipe

Materials

Components	Materials
upper elbow	Brass
valve	Brass
Housing	Polycarbonate
Ball valve	Rubber
Conical fittings	Brass
Pipe	polyethylene

Construction

The automatic air feeder ARIAMAT controls the air cushion in the pressure vessel by replacing the air dissolved in the water at every pump start. This device limits the number of pump starts and stops, allows a better use of the water reserve and improves the overall performance of the automatic pressure system.

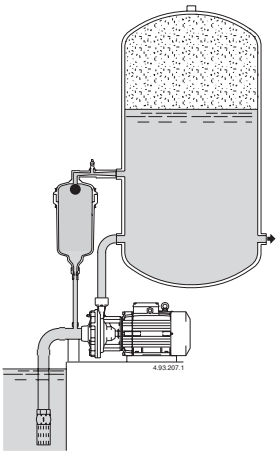
Functioning mode

ARIAMAT operation is explained in pictures 1-2-3-4. At the end of every cycle, ARIAMAT AR 300E, AR 1000E and AR 2000E let in the vessel 300, 1000 and 2000 cm³ of air respectively. If the pumps work under positive suction head and water falls to the suction inlet, there will not be enough suction pressure in the suction pipe to allow a correct operation of ARIAMAT; in this case, it is necessary to create an artificial loss in the suction pipe, by closing gradually the gate valve when the pump is running until the water level in the ARIAMAT starts dropping. When a sufficient suction pressure to grant a safe ARIAMAT operation cannot be achieved, it is recommended to feed the vessel with a compressed air system and level probes.

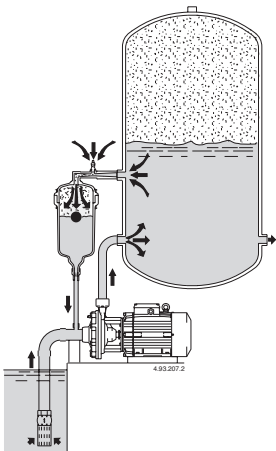
Description of the supply

The ARIAMAT is normally fitted on our automatic water systems. The supply of ARIAMAT, as a spare part to be installed by the customer, includes: ARIAMAT assembled with upper elbow and air valve; Polyethylene tube with ring nut and fitting for connection to the pump suction side.

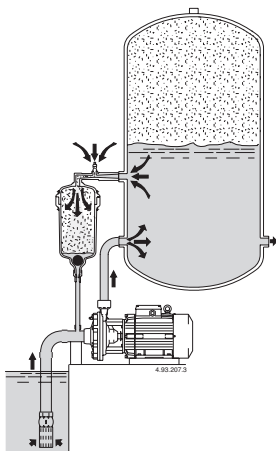
Pressure in m	Pressure vessel capacity in litres											
	100	200	300	400	500	750	1000	2000	3000	4000	5000	
14/28	AR 300E						AR 1000E				AR 2000E	
20/30	AR 300E					AR 1000E					AR 2000E	
30/40	AR 300E			AR 1000E						AR 2000E		
35/55	AR 300E			AR 1000E					AR 2000E			
55/70	AR 300E		AR 1000E						AR 2000E			
75/95	AR 300E	AR 1000E				The use of an air compressor is recommended.						



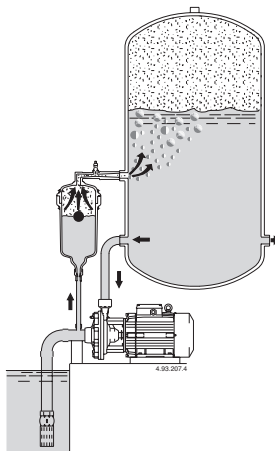
1) When the pump is stopped, ARIAMAT is full of water.



When starting, the pumps creates a suction pressure which also takes the water from ARIAMAT, allowing some more water to come from the vessel. The water through the ARIAMAT venturi sucks air from the upper valve.



The water level in the ARIAMAT drops until the ball valve moves to the bottom of the hole of the pipe connected to the pump. ARIAMAT is now full of water.



When stopping, there is a back-flow of water from the vessel through the pump, to the ARIAMAT. Air is pushed inside the vessel.

ACCESSORIES



VALVES



- check valve
- VNR 1
 - VNR 1 1/4
 - VNR 1 1/2
 - VNR 2

Foot valve:
VDF 1
VDF 1 1/4
VDF 1 1/2
VDF 2

CONNECTOR



Type:
RA5 H 92
RA5 H 105
connection G 1

FLOAT SWITCH



Type:
INTGALL (cable 3m, 5m, 10m)



Type:
INTGALL M (5m, 10m, 20m cable)



Type:
INTGALL A (5m, 10m cable)

FLEXIBLE HOSE



Pump type	d x length
FP 1-630	G 1 x 630
FP 1-680	G 1 x 680

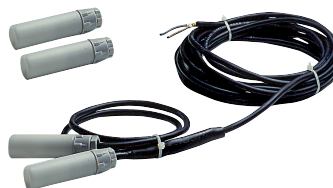
PRESSURE GAUGES



axial connection type
MA 0-6
MA 0-6 ABS

radial connection type
MR 0-10
MR 0-12
MR 0-16

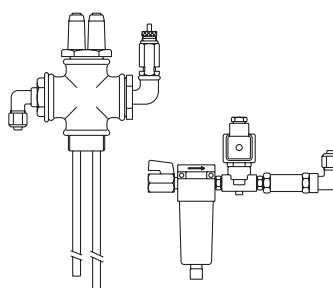
LEVEL PROBES



Type:
SL 2 electrodes
SLA Assembled level probes
(cable length on request)

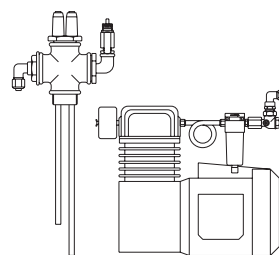
example:
SLA 30
SLA Assembled level probes
30 = cable length 30 m

SYSTEM FOR AIR INTAKE



Level probe assembly with solenoid valve

SYSTEM FOR AIR INTAKE



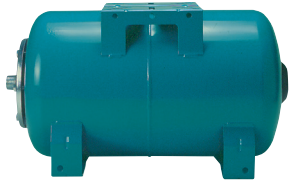
Kit of level probes with compressor

SPHERICAL VESSEL



Type:
SS 24: G1 connection, 24l capacity
BUTYL rubber diaphragm.

CYLINDRICAL TANK WITH BASE AND FEET



Type:
SC 20 BP: G1 connection, 20l capacity
BUTYL rubber diaphragm.

VERTICAL STAINLESS STEEL CYLINDRICAL TANK



Type:
SCX 20: G1 connection, 20l capacity
BUTYL rubber diaphragm.

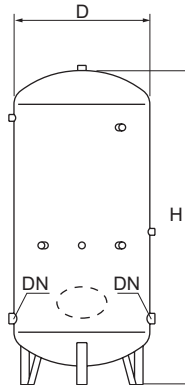
STAINLESS STEEL CYLINDRICAL TANK WITH BASE AND FEET



Type:
SCX 20 BP: G1 connection, 20l capacity
BUTYL rubber diaphragm.

CE 97/23 PED APPROVED PRESSURE VESSELS (Air tanks)

Hot galvanized vessels



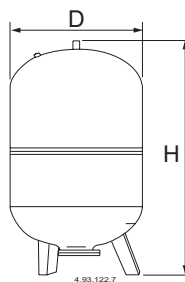
Pump type	Dimensions	DN	weight
	D x H mm		Kg
100- 5	400 x 1020	G 1	32
200- 5	450 x 1440	G 1	48
300- 8	550 x 1500	G 1 1/2	65
500-8	650 x 1820	G 2	105
800-8	800 x 1900	G 2	145
1000-8	800 x 2150	G 2 1/4	160
1000-12 (1)	800 x 2300	G 2 1/4	203
1500-8 (1)	950 x 2500	G 2	255
2000-8 (1)	1100 x 2570	G 2 1/4	330
2000-12 (1)	1000 x 2780	G 2 1/4	387
3000-8 (1)	1250 x 2930	G 3	470
3000-12 (1)	1200 x 2930	G 3	596
4000-8 (1)	1450 x 3090	G 3	620
4000-12 (1)	1450 x 3090	G 3	880
5000-8 (1)	1450 x 3590	G 4	715
5000-12 (1)	1450 x 3590	G 4	1020

The vessels are suitable for water up to 50 °C

The vessels are all approved at manufacturer's premises and are supplied complete with safety valve, tested pressure gauge and fittings.

(1) Tanks subject to annual inspection by authorised bodies, by the customer.(Pressure x Volume P x V > 8000; or nominal pressure >11.76 bar).

CE 97/23 PED APPROVED MEMBRANE VESSELS (Membrane vessels)



Pump type	PRESSURE	Dimensions	DN	weight
	bar	D x H mm		Kg
SM 60 V	10	382 x 845	G 1	-
SM 80 V	10	450 x 850	G 1	-
SM 100 V	10	450 x 950	G 1	-
SM 200 V	10	550 x 1255	G 1 1/2	-
SM 300 V	10	630 x 1405	G 1 1/2	-
SM 500 V	10	780 x 1550	G 1 1/2	-
SM 750 V	10	780 x 1940	G 1 1/2	-
SM 1000 V	10	780 x 1940	G 2	-

EPDM diaphragm

Temperature -10 ÷ +100 °C

With safety valve and pressure gauge 0÷10 bar