

## AUTOMATIC AIR FEEDER



### ARIAMAT

#### type

AR 300E

AR 1000E

AR 2000E

Complete with connections and 1 m polyethylene pipe

### Materials

Component	Material
Upper elbow	Brass
Air valve	Brass
Feeder body	Polycarbonate
Ball valve	Rubber
Conical fittings	Polyethylene
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.

### Operation

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 cm<sup>3</sup> of air respectively.

For a good operation of ARIAMAT it is necessary to have enough suction pressure in the pipe whilst the pumps are running.

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.

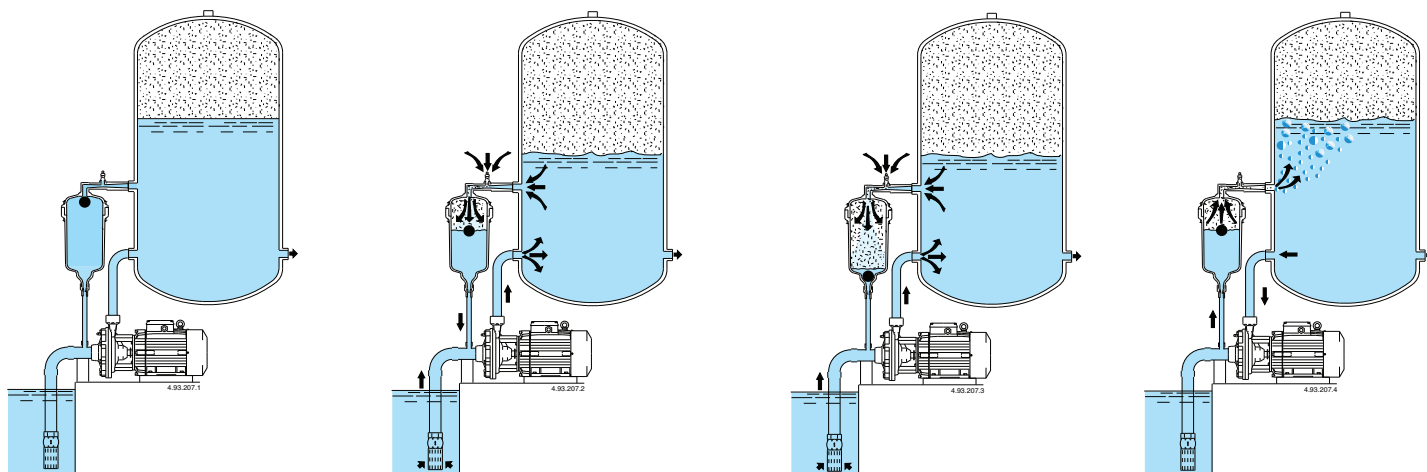
### Description of the supply

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:

- n° 1 ARIAMAT assembled with upper elbow and air valve;
- m 1 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	1500	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.

2) 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.

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

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

## 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

## PRESSURE GAUGES



axial connection type

MA 0-6

MA 0-6 ABS

radial connection type

MR 0-10

MR 0-12

MR 0-16

## CONNECTOR



type	connection
RA5 H 92	G 1
RA5 H 105	G 1

RA5 H 92

G 1

RA5 H 105

G 1

## LEVEL PROBES



type

SL 2 electrodes

SLA Assembled level probes

Cable 2x0,75 mm<sup>2</sup>

(cable length on request)

example:

Assembled level probes

30 m cable length

SLA 30

## SPHERICAL VESSEL



type	connect.	capacity
SS 24	G 1	24 l

SS 24

G 1

24 l

BUTYL rubber diaphragm.

## CYLINDRICAL VESSEL



vessel with base and feet

type	connect.	capacity
SC 20 BP	G 1	20 l

SC 20 BP

G 1

20 l

BUTYL rubber diaphragm.

## INOX CYLINDRICAL VESSEL



vertical cylindrical vessel

type	connect.	capacity
SCX 20	G 1	20 l

SCX 20

G 1

20 l

BUTYL rubber diaphragm.

## INOX CYLINDRICAL VESSEL



vessel with base and feet

type	connect.	capacity
SCX 20 BP	G 1	20 l

SCX 20 BP

G 1

20 l

BUTYL rubber diaphragm.

# ACCESSORIES

## KIT 1



Type	KIT 1A	KIT 1B	KIT 1CX	KIT 1DX
<b>Components</b>				
<b>Connector</b>	RA5 H 92	RA5 H 92	RA5 H 92	RA5 H 92
<b>Pressure switch</b>	FSG 2	FYG 22	FSG 2	FYG 22
<b>Pressure gauge</b>	MA 0-6 ABS	MR 0-10	MA 0-6 ABS	MR 0-10
<b>Vessel</b>	SS 24	SS 24	SCX 20	SCX 20

## KIT 2



Type	KIT 2A	KIT 2B	KIT 2CX	KIT 2DX
<b>Components</b>				
<b>Connector</b>	RA5 H 92	RA5 H 92	RA5 H 92	RA5 H 92
<b>Pressure switch</b>	FSG 2	FYG 22	FSG 2	FYG 22
<b>Pressure gauge</b>	MA 0-6 ABS	MR 0-10	MA 0-6 ABS	MR 0-10
<b>Flexible hose</b>	FP 1-680	FP 1-680	FP 1-680	FP 1-680
<b>Bend</b>	1" M.F.	1" M.F.	1" M.F.	1" M.F.
<b>Bend</b>	1" F.F.	1" F.F.	1" F.F.	1" F.F.
<b>Vessel</b>	SC 20 BP	SC 20 BP	SCX 20 BP	SCX 20 BP

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

Hot galvanized vessels	TYPE	Dimensions D x H mm	DN	weight kg
		100-5	400 x 1020	G 1
	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
	500-12	600 x 2000	G 2	120
	800-8	800 x 1900	G 2	145
	1000-8	800 x 2150	G 2 1/2	160
	1000-12 ▲	800 x 2300	G 2 1/2	203
	1500-5	950 x 2500	G 2	190
	1500-8 ▲	950 x 2500	G 2	255
	2000-8 ▲	1100 x 2570	G 2 1/2	330
	2000-12 ▲	1000 x 2780	G 2 1/2	387
	3000-8 ▲	1250 x 2930	G 3	470
	3000-12 ▲	1200 x 2930	G 3	596
	4000-8 ▲	1450 x 3090	G 3	620
	4000-12 ▲	1450 x 3090	G 3	880
	5000-8 ▲	1450 x 3590	G 4	715
	5000-12 ▲	1450 x 3590	G 4	1020

The vessels are suitable for water up to 50 °C  
They are all approved at manufacturer's premises and are supplied complete with safety valve, tested pressure gauge and fittings.

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

	TYPE	Pressure bar	Dimensions D x H mm	DN	weight kg
	SM 60 C	10	380 x 810	G 1	-
SM 80 C	10	430 x 960	G 1	-	
SM 100 C	10	460 x 990	G 1	-	
SM 200 C	10	590 x 1120	G 1 1/4	-	
SM 300 C	10	640 x 1230	G 1 1/4	-	
SM 500 C	10	750 x 1550	G 1 1/4	-	
SM 750 C	10	800 x 1850	G 2	-	
SM 1000 C	10	800 x 2180	G 2	-	

EPDM diaphragm  
Temperature -10 ÷ +100 °C  
With safety valve and pressure gauge 0-16 bar

# ACCESSORIES

## FLOAT SWITCH

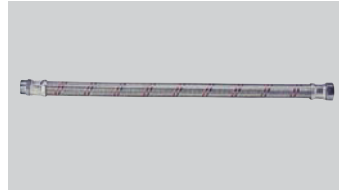


tipo

**INTGALL**

(cable 2,5 m)

## FLEXIBLE HOSE



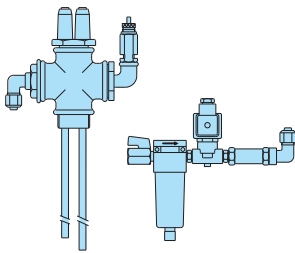
type

d x length

**FP 1-630** G 1 x 630

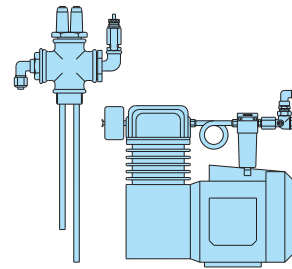
**FP 1-680** G 1 x 680

## SYSTEM FOR AIR INTAKE



Kit of level probes  
with solenoid valve

## SYSTEM FOR AIR INTAKE



Kit of level probes  
with compressor

## MOTOR COVER PROTECTION KIT



Type	Motor kW
<b>Ø 157 cover</b>	0,75 ÷ 2,2
<b>Ø 180 cover</b>	3 ÷ 4
<b>Ø 223 cover</b>	5,5 ÷ 7,5
<b>Ø 263 cover</b>	9,2 ÷ 18,5
<b>Ø 314 cover</b>	22 ÷ 30

The kit includes: 1 Plate  
1 Cilinder  
2 Screws  
1 Washer