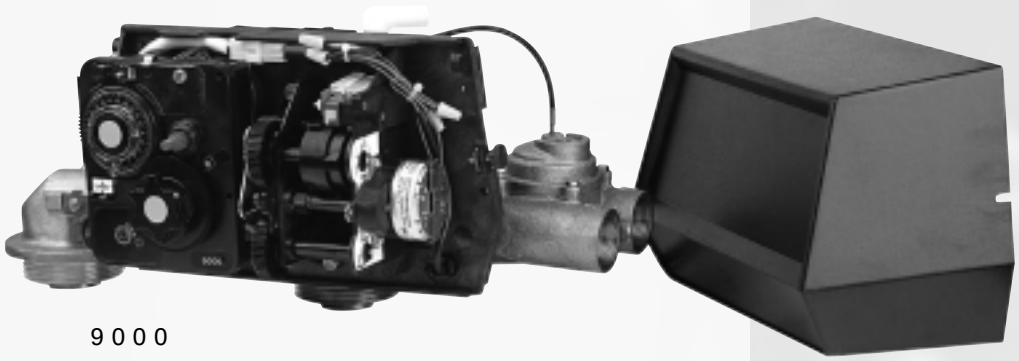
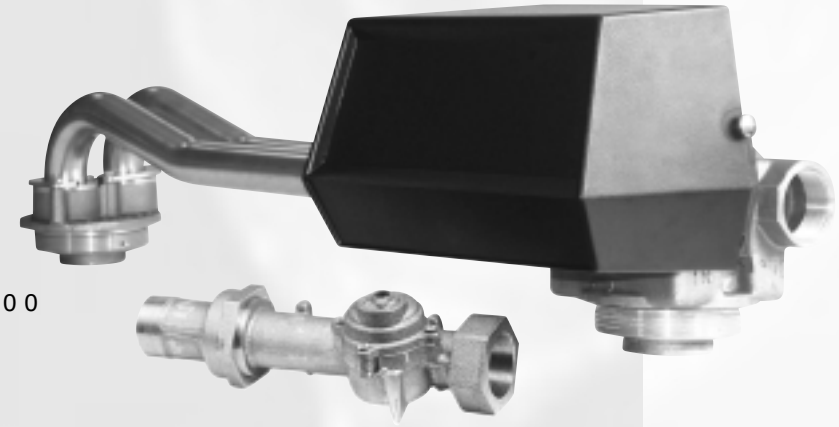
9000, 9100 AND 9500 VALVES



9000

9100



9500

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1 - VALVE SPECIFICATIONS

Installation N°		System capacity		m^3°TH
Valve serial N°		Inlet water hardness		°TH
Tank size		Water hardness after mixing valve		°TH
Resin type		Brine tank size		L
Resin volume		Quantity of salt per regeneration		Kg

VALVE TECHNICAL CHARACTERISTICS

VALVE TYPE

9000/1600		9100/1600	
3/4" meter			
1" meter			
9500/1600		9500/1700	
1 1/2" meter			

INITIATION		SET REGENERATION	
Meter immediate			m^3 or L

REGENERATION CYCLE SETTINGS

Cycle 1		Min.
Cycle 2		Min.
Cycle 3		Min.
Cycle 4		Min.

HYDRAULIC SETTINGS

			Pressure regulator			
Injector size						
Drain line flow control (DLFC)		GPM	1,4 bar (20 PSI)		2,1 bar (30 PSI)	
Brine line flow control (BLFC)		GPM	Without			

VOLTAGE

24V/50Hz	
24V/60Hz without transformer	

NOTES

2 - VALVE INSTALLATION

2.1 Water Pressure

A minimum of 1,4 bar of water pressure is required for the regeneration valve to operate effectively.
Do not exceed 8,5 bar ; if you face this case, you should install a pressure regulator upstream the system.

2.2 Electrical Connection

An uninterrupted current supply is required. Please make sure that your voltage supply is compatible with your unit before installation. If the electrical cable is damaged, it must imperatively be replaced by a qualified personal.

2.3 Existing Plumbing

Existing plumbing should be in a good shape and free from limescale. In doubt, it is preferable to replace it.
The installation of a pre filter is always advised.

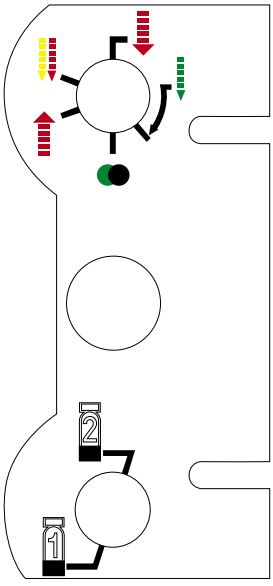
2.4 By-pass

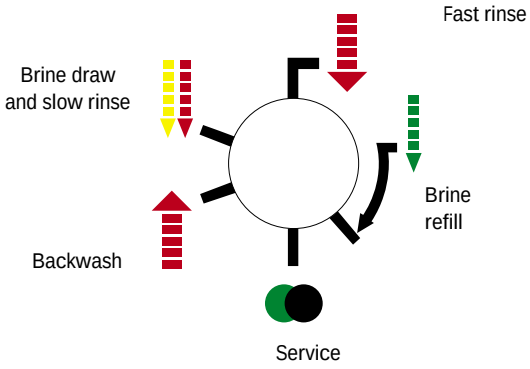
Always provide a by pass valve for the installation, if the unit is not equipped with one.

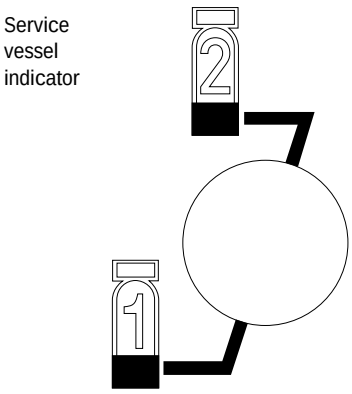
2.5 Water Temperature

Water temperature is not to exceed 43°C, and the unit cannot be subjected to freezing conditions. (It could cause irreversible damage to the valve).

2.6 Presentation







3 - INSTALLATION INSTRUCTIONS

3.1 Install the softener pressure vessels in a chosen place on a flat firm surface.

3.2 During cold weather, it is recommended to bring the valve back to room temperature before operating.

3.3 All plumbing for water inlet, distribution and drain lines should be done correctly in accordance with legislation in force at the time of installation.

3.4 The distribution tube should be cut flush with the top of the tank. Slightly bevel the ridge in order to avoid deterioration of the seal whilst fitting the valve. The tube for 9000/9100 is Ø27 mm (1") and DN40 for the 9500 valve.

3.5 Lubricate the distribution tube joint and the joint with a 100% Silicon lubricant. Never use other types of greases that may damage the valve.

3.6 All soldering on main plumbing and to the drain line should be done before fitting the valve. Failing to do so can generate irreversible damages.

3.7 Use Teflon® tape if necessary in order to seal between the drain fitting and the outlet flow control.

3.8 Ensure that the floor under the brine tank is clean and flat.

3.9 On units with by-pass, place in by-pass position. Turn on the main water supply. Open a cold soft water tap nearby and let run a few minutes or until the system is free from foreign material (usually solder) that may have resulted from the installation. Once clean, close the water tap.

3.10 Place the by-pass in service position and let water flow into the mineral tank. When water flow stops, slowly open a cold water tap nearby and let run until the air is purged from the unit.

3.11 Plug the valve to a power source. Once plugged the valve may do a cycle on its own in order to go to service position.

3.12 The valve has an indicator informing the installer of its position: on the side of the motor that pilots the pistons, there is a sticker with images (see chap 2.6).

3.13 Start a regeneration by turning the wheel on the timer (see p.6) to bring the valve in service on the 2nd vessel and execute each cycle of the regeneration (see p.7) in order to empty residual air in the first vessel that has just filled up. Do the same action for the second vessel.

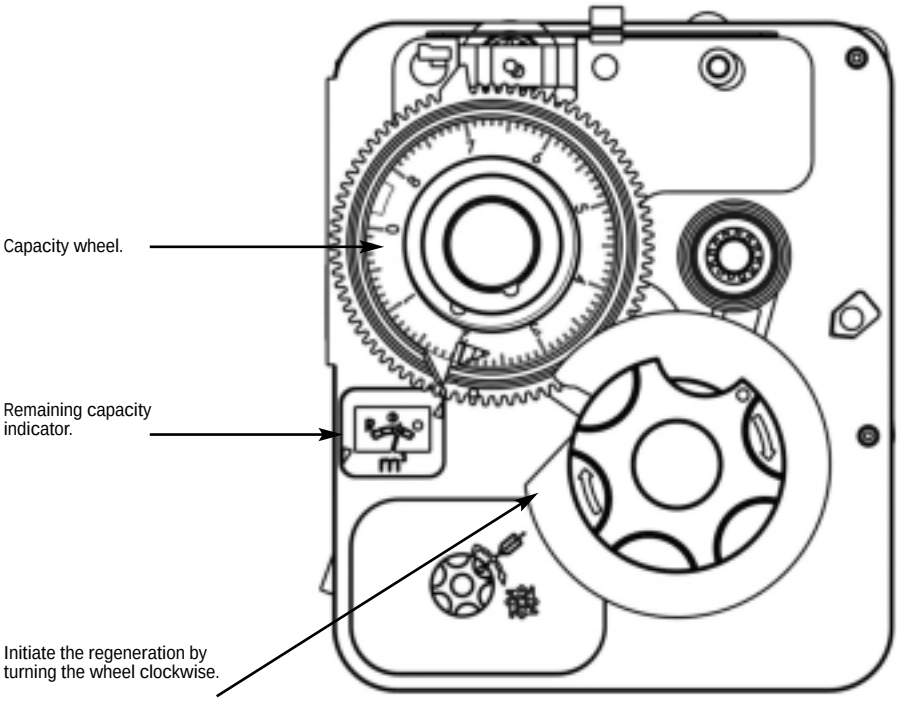
3.14 Fill approximately 25mm of water above the grid plate, (if used). Otherwise, fill to the top of the air check in the brine tank. Do not add salt to the brine tank at this time.

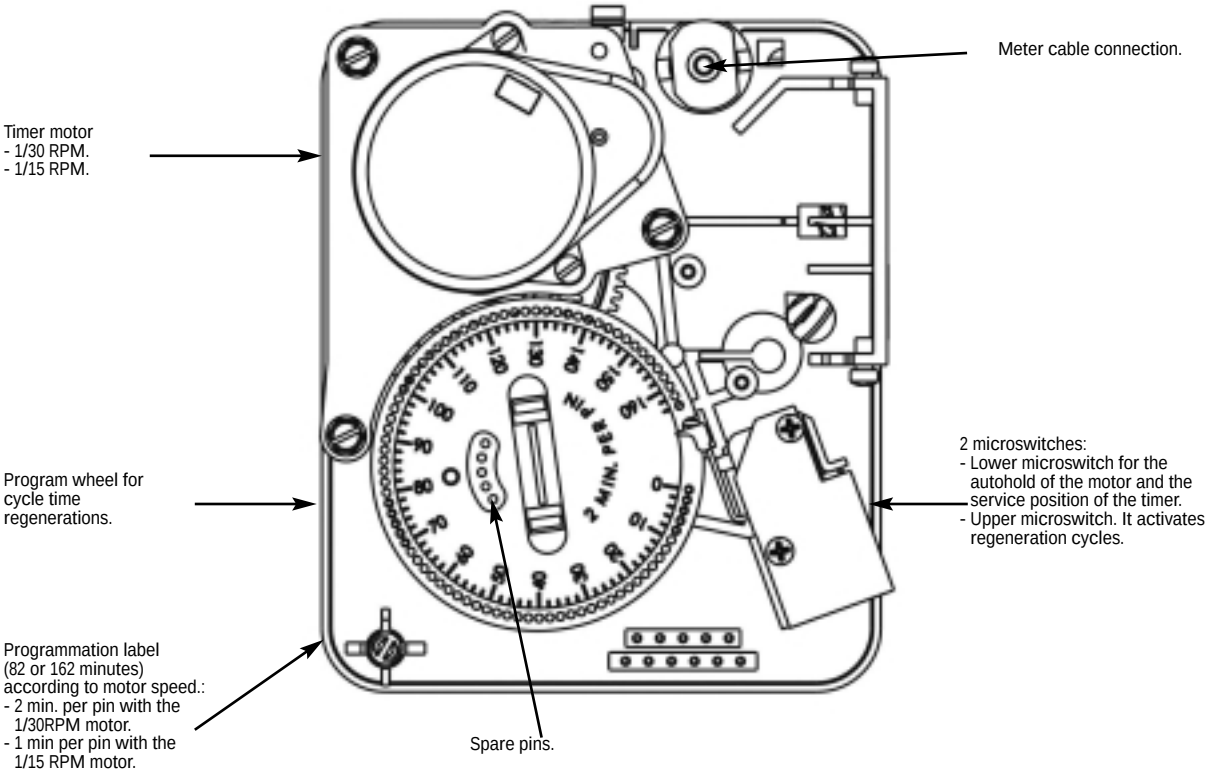
3.15 Initiate a manual regeneration, bring the valve into "brine draw and slow rinse" position in order to draw water from the brine tank until the blockage of the air-check valve; the water level will be approximately in the middle of the air check. Open the cold water tap and let water flow in order to drain the air out of the circuit.

3.16 Put the valve in brine refill position and let it get back to service position automatically.

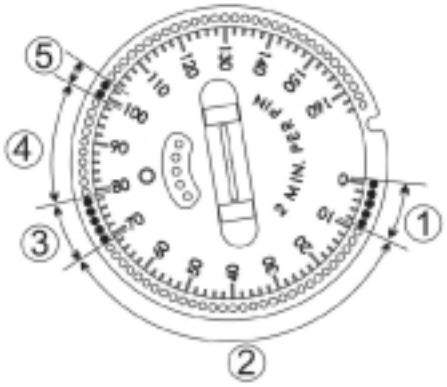
3.17 Now you can add salt to the brine tank, the valve will operate automatically.

4 - MECHANICAL TIMER





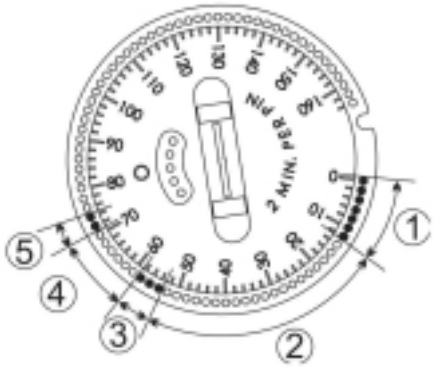
5 - CYCLE TIME SETTINGS



	DOWN FLOW	UP FLOW
1	Backwash	Fast rinse
2	Brine draw and slow rinse (down flow)	Brine draw and slow rinse (upflow)
3	Fast rinse	Backwash
4	Brine refill	Brine refill
5	**Always put these pins at the end of the setting**	

Cycle times are factory preset.
Each pin or hole is equivalent to 2 minutes.
It is highly recommended to verify if each cycle time is adapted to specific site conditions.

To modify the cycle time of each regeneration, add or remove pins.
Example: view diagram on the right
1- Backwash : it goes from 10 to 14 minutes
2- Brine draw and slow rinse: it's reduced from 60 to 40 minutes
3- Fast rinse: it's reduced from 10 to 6 minutes
4- Brine refill : it's reduced from 20 to 12 minutes.



The 9000/91000/9500 valve has a brine refill cycle. Time needs to be calculated (in minutes) taking into account the following parameters:
- The flow regulator in the brine tank expressed in gallon per minute (gpm)
- The amount of salt needed to regenerate the resin total volume.
- A litre of water can dissolve roughly 0,362 kg of salt.

Note : 1 gallon = 3,785 l

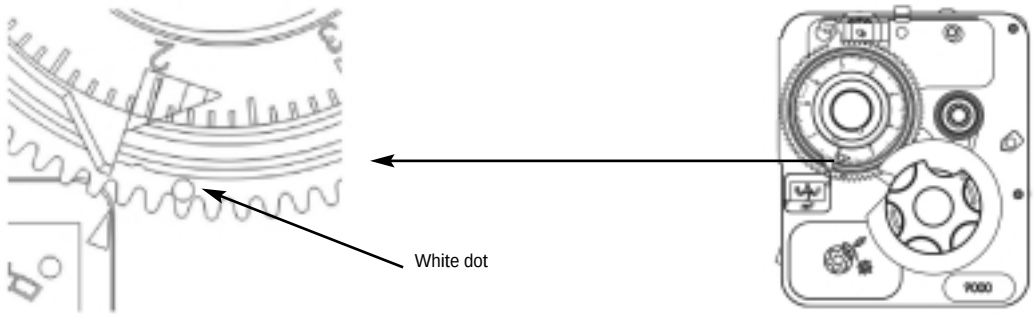
Example:
For a 0,25 gallon par minute (gpm regulator), 6 kg of salt do dissolve, calculate this way to know the amount of minutes to set on the program wheel.

$$\frac{6}{0{,}362 \times 0{,}25 \times 3{,}785} = 17{,}51$$

BLFC

As it is only possible to set the time on even numbers, the timer has to be set on 18 minutes.

6 - CAPACITY SETTINGS



Knowing the resin volume in the vessel and the brine concentration (g of salt/litre of resin), you can establish the softened water capacity of your installation. (g of salt/litre of resin)
As a guideline, you will find in the chart hereunder a few brine concentrations with their conversion in exchange capacity.

BRINE CONCENTRATION IN G OF SALT/ LITRE DE RÉSINE	EXCHANGE CAPACITY M³° TH/LITRE OF RESIN.
240	6,90
200	6,70
150	6,00
96	5,00

$$\frac{\text{System capacity}}{\text{Resin volume x exchange capacity}} = \text{Capacity of softened water at 0°Th}$$
$$\text{Hardness of water to remove °Th}$$

Example :
Water hardness 30°Th, resin volume 12 litres per vessel and a brine concentration of 150 g of salt per litre of resin:
12 x 6 =72 m³°Th
72 / 30=2,4 m³

Important note: 9000/9100/9500 valves regenerate with soft water provided by the vessel in service. It is necessary to deduct the water volume consumed for the regeneration.

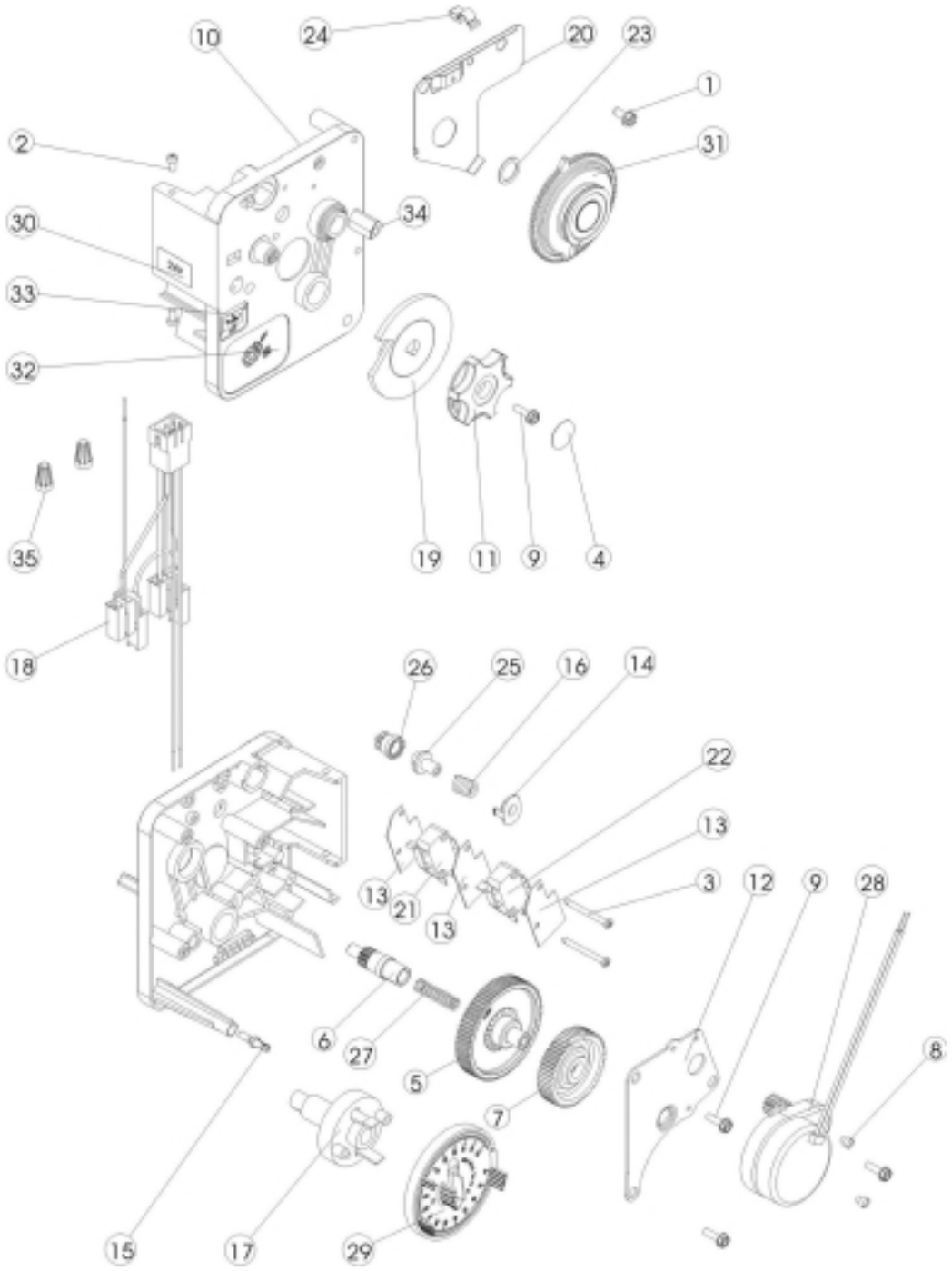
The unit quoted above is set up for an 8" vessel with a 1.5 gpm drain line flow control (DLFC), an injector size number 1 and a 0.25 gpm brine line flow control (BLFC).
Cycle time settings : backwash 8minutes, brine draw and rinse 26 min, fast rinse 6 min, brine refill 6 minutes.

Backwash time (8 min.) x DLFC (1,5 gpm)	= 45,42 l
Brine draw/slow rinse (28 min.) x 1,2	= 33,6 l
Rapid rinse (6 min.) x DLFC (1,5 gpm)	= 34 l
Brine refill (6 min.) x BLFC (0,25 gpm)	= 5 l

The total water volume used for regeneration is 118 litres.
You have the choice between deducting 100 or 200 litres so the wheel will be set on 2.2 or 2.3 m³ (see picture above).

Important note:
There is a time gap between the beginning of the regeneration and the moment the meter arrives down to zero.
A valve (for vessels between 6 and 12 inches) equipped with a 1/15RPM motor will have a 9 minutes time gap.
A valve (for vessels between 13 and 16 inches) equipped with a 1/30RPM will have an 18 minutes time gap
It is somehow recommended to take into account this gap and to deduct from the softened water capacity a volume of water equivalent to a continuous water flow for 9 to 18 minutes.

7 - METERED TIMER TYPE 9000



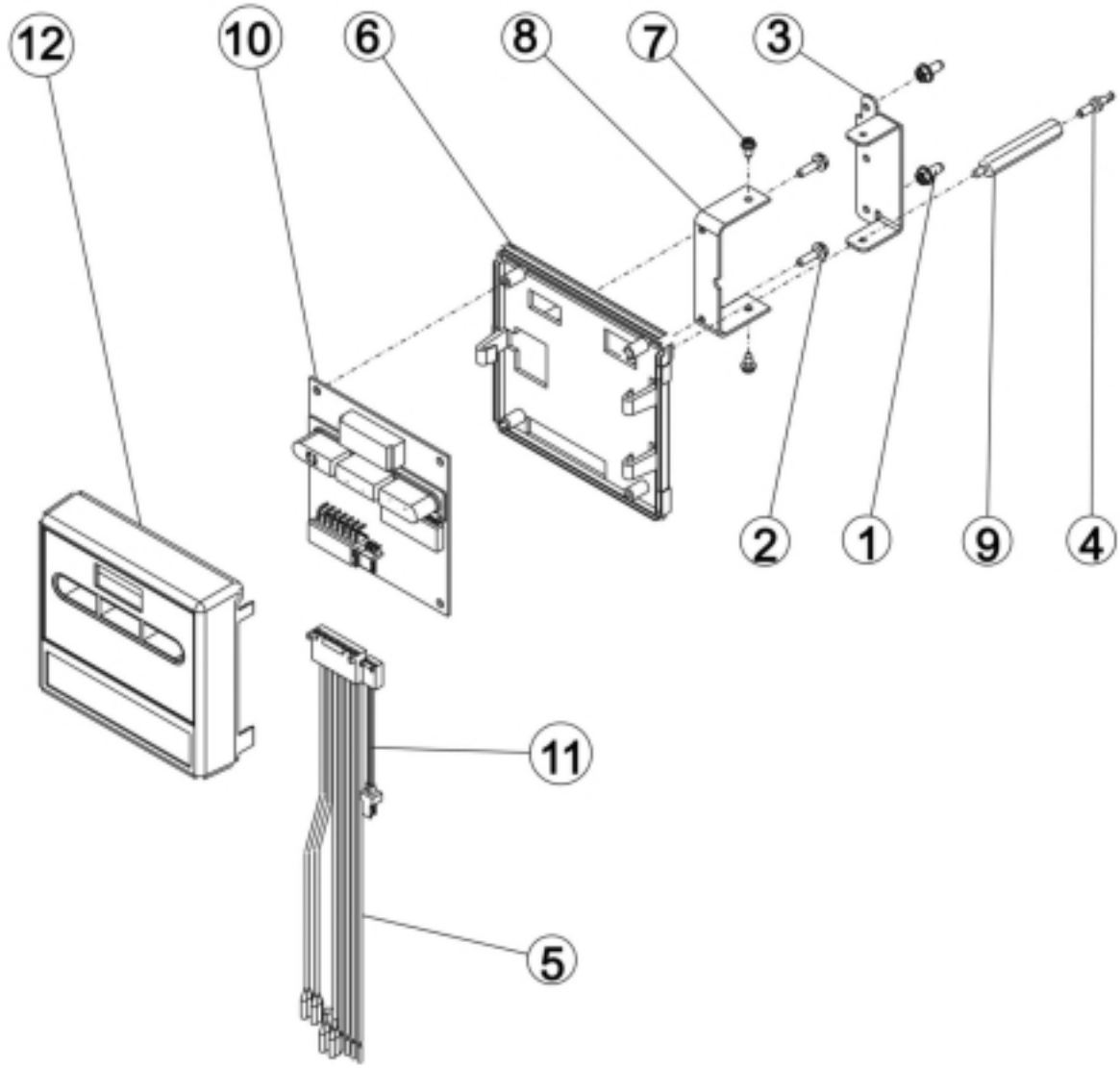
Complete 9000 metered timer reference: P/N 24231

7 - METERED TIMER TYPE 9000

ITEM	QTY	P/N	DESCRIPTION	DÉSIGNATION
1.	1	10300	Screw	Vis
2.	2	11384	Screw	Vis
3.	2	11413	Screw	Vis
4.	1	11999	Label button	Cache bouton
5.	1	13017	Idler gear	Pignon
6.	1	13018	Idler shaft	Pignon
7.	1	13164	Drive gear	Roue d'entraînement
8.	2	13278	Screw motor mounting	Vis
9.	4	13296	Screw #6-20	Vis
10.	1	13870-03	Timer housing 9000/9100/9500	Boîtier du timer
11.	1	13886	Knob 3200	Bouton
12.	1	13887	Motor mounting plate	Support moteur
13.	3	14087	Insulator	Isolateur
14.	1	14253	Geneva wheel	Butée de ressort
15.	1	14265	Spring clip	Clip
16.	1	14276	Meter clutch spring	Ressort
17.	1	15055	Main drive gear	Pignon principal
18.	1	15203	Wire harness 9000 timer	Faisceau électrique timer 9000
19.	1	15223	Cycle actuator	Roue de déclenchement
20.	1	15227	Clutch actuator plate	Plaque de déclenchement
21.	1	15314	Microswitch	Microcontacteur
22.	1	15320	Microswitch	Microcontacteur
23.	1	15407	Plain washer	Rondelle
24.	1	17513	Spring clip	Attache ressort
25.	1	17723	Drive pinion clutch	Embrayage
26.	1	17724	Drive pinion	Pignon d'entraînement
27.	1	18563	Idler shaft spring	Ressort
28.	1	18826*	Motor 24V/50 Hz, 1/30 Rpm	Moteur 24V/50 Hz, 1/30 t/min.
	1	19168*	Motor 24V/50 Hz, 1/15 Rpm	Moteur 24V/50 Hz, 1/15 t/min.
29.	1	24201	Program wheel 180 min.	Roue de programmation 180 min.
	1	24528	Program wheel 90 min.	Roue de programmation 90 min.
30.	1	24388	Voltage label 24V	Étiquette 24V
31.	1	24580	Program wheel assy 9000, $8m^3$	Roue de capacité $8m^3$ assemblée
32.	1	26847	Pictogram label	Label pictogramme
33.	1	26848	Indicator label	Étiquette
34.	1	26870	Label pictogram	Label pictogramme
35.	2	40422	Wire nut	Connecteur

* This motor is sold in a kit including motor, connectors and screws.
- 18826 kit P/N 26778
- 19168 kit P/N 26779

7 - ELECTRONIC TIMER SE 9000

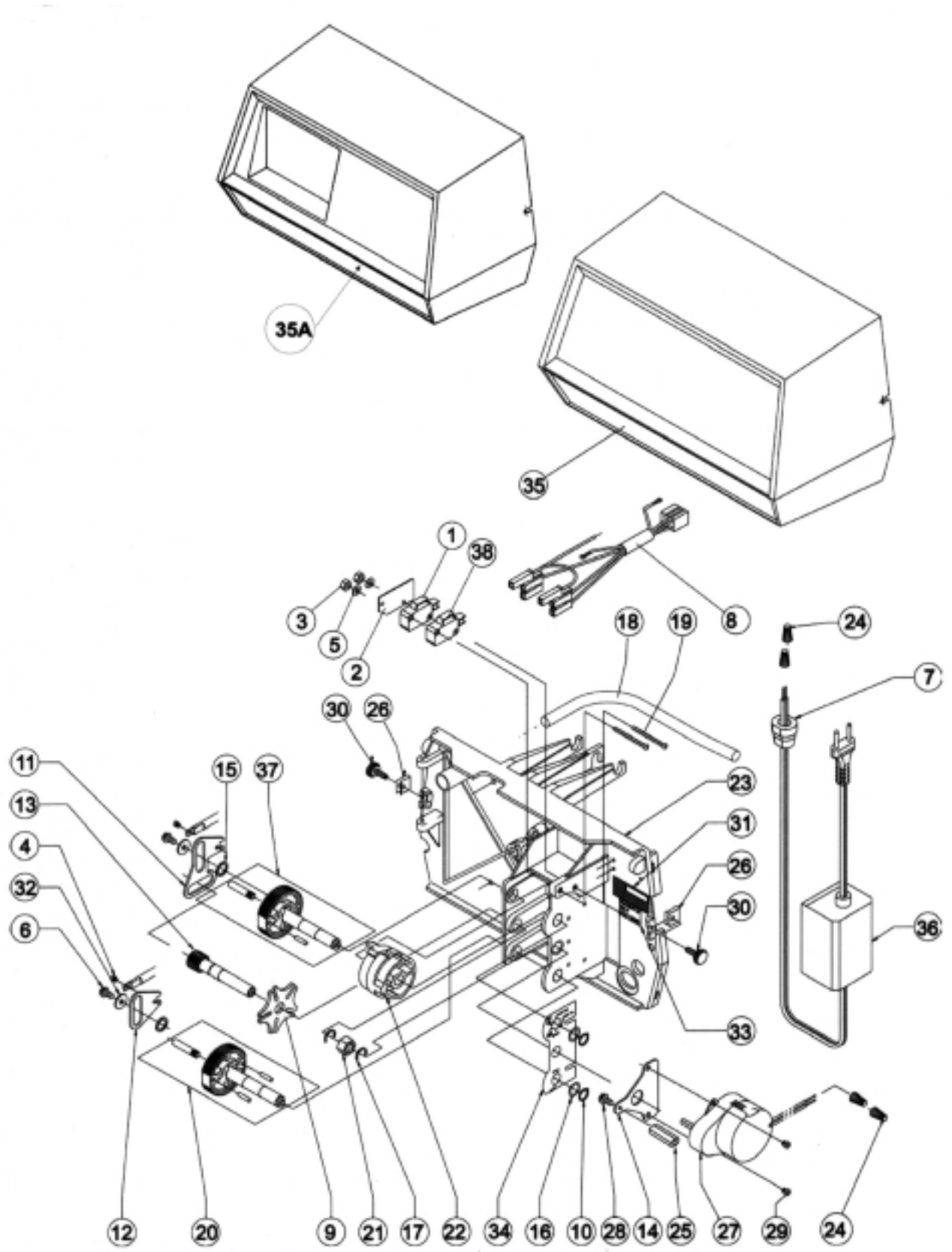


Complete SE timer reference: P/N 26985

Caution: the water meter cable is not included, it has to be ordered separately: P/N 28114-01 for 9000/9100
P/N 28114-06 for 9500

ITEM	QTY	P/N	DESCRIPTION	DÉSIGNATION
1.	2	10300	Screw	Vis
2.	2	13296	Screw	Vis
3.	1	13881	Hinge bracket	Equerre de support
4.	1	14265	Spring clip	Clip
5.	1	19474-01	Wire harness power & home/step	Faisceau d'alimentation
6.	1	19889	Housing circuit board	Boîtier
7.	2	26885	Screw	Vis
8.	1	26982	Mounting bracket timer	Equerre de montage
9.	1	26983	Stand off timer	Entretoise
10.	1	27074	Circuit board and rubber button	Ensemble carte et bouton
11.	1	27808	Meter cable extension	Rallonge de câble de compteur
12.	1	28226-01	Cover front panel & label SE DF	Façade avant assemblée

8 - POWER HEAD 9000 / 9100 / 9500



8 - POWER HEAD 9000 / 9100 / 9500

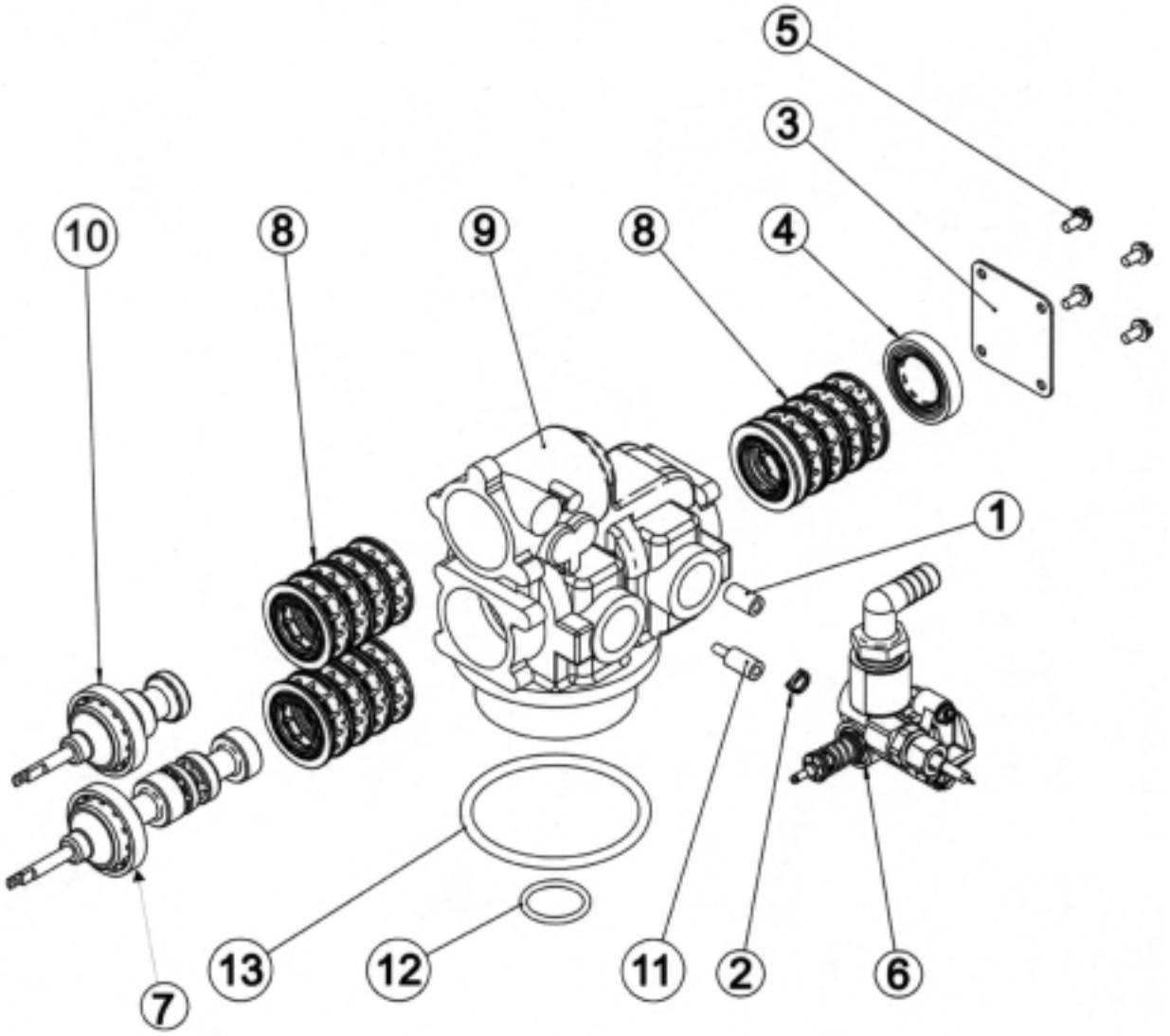
ITEM	P/N	QTY	DESCRIPTION	DÉSIGNATION
1.	10218	1	Microswitch	Microcontacteur
2.	10302	1	Insulator	Insolateur
3.	10339	2	Switch mount nut	Écrou
4.	11335	2	Screw	Vis
5.	11663	2	Lock washer	Rondelle éventail
6.	13296	2	Screw	Vis
7.	13547	1	Strain relief	Serre câble
8.	27746	1	Wire harness assy	Faisceau électrique
			SE version, not used.	Non utilisée dans la version électronique SE.
9.	14896	1	Geneva wheel	Roue de genève
10.	14917	2	Retaining ring	Circlips
11.	14921	1	Upper piston rod link	Bielle tige de piston supérieur
12.	15019	1	Lower piston rod link	Bielle tige de piston inférieur
13.	15135	1	Drive gear	Roue d'entraînement
14.	15199	1	Ground plate	Plaque moteur
15.	15372	2	Thrust washer	Rondelle
16.	15692	2	Brass washer	Rondelle
17.	15810	2	Retaining ring	Circlips
18.	15368	1	Cable guide	Guide câble
19.	15172	2	Screw	Vis
20.	25870	1	Lower drive gear	Roue d'entrainement inférieur
21.	17315	1	Manual regeneration nut	Écrou
22.	15132	1	Triple cam 9000/9100	Came triple pour 9000/9100
	17765	1	Triple cam 9500	Came triple pour 9500
23.	15131	1	Control panel	Platine de montage
	28149	1	Control panel SE version	Platine de montage version SE
24.	40422	4	Wire nut	Connecteur
25.	27712	1	Protector cylinder	Cylindre de protection
26.	18728	2	Clip nut	Écrou clip
27.	18737*	1	Drive motor 24V 50-60Hz 1t/min	Moteur 24V 50-60Hz 1t/min.
28.	19160	1	Screw	Vis
29.	11086	2	Motor screw	Vis du moteur
30.	19367	1	Cover screw	Vis du couvercle
31.	21271	1	Serial number label	Étiquette numéro de série
32.	23250	2	Washer	Rondelle
33.	23474	1	"assembled by" label	Étiquette "assemblé par"
34.	27002	1	Positionning pictogram label	Label pictogramme des positions
35.	19291-020	1	Designer cover for mechanical version(blck)	Couvercle pour version mécanique (noir)
35. A	26473		Designer cover for elecltronic version	Couvercle pour version électronique
36.	25651	1	Transformer 230V/24V-AC/400 mA	Transformateur 230V/24V-AC/400mA
37.	25868	1	Upper drive gear	Roue d'entrainement supérieur
38.	16433	1	Microswitch	Microcontacteur

*This motor is sold in a kit including motor, connectors, screws and plate: P/N 26503-24

The mechanical power head is sold <u>without</u> timer and with auxilliary microswitch:
- Power head for mechanical 9000/9100 P/N 306 602
- Power head for mechanical 9500 P/N 306 605

The electronical power head is sold <u>with</u> timer and auxilliary microswitch:
- Power head for SE electronic 9000/9100 P/N 306 603
- Power head for SE electronic 9500 P/N 306 606

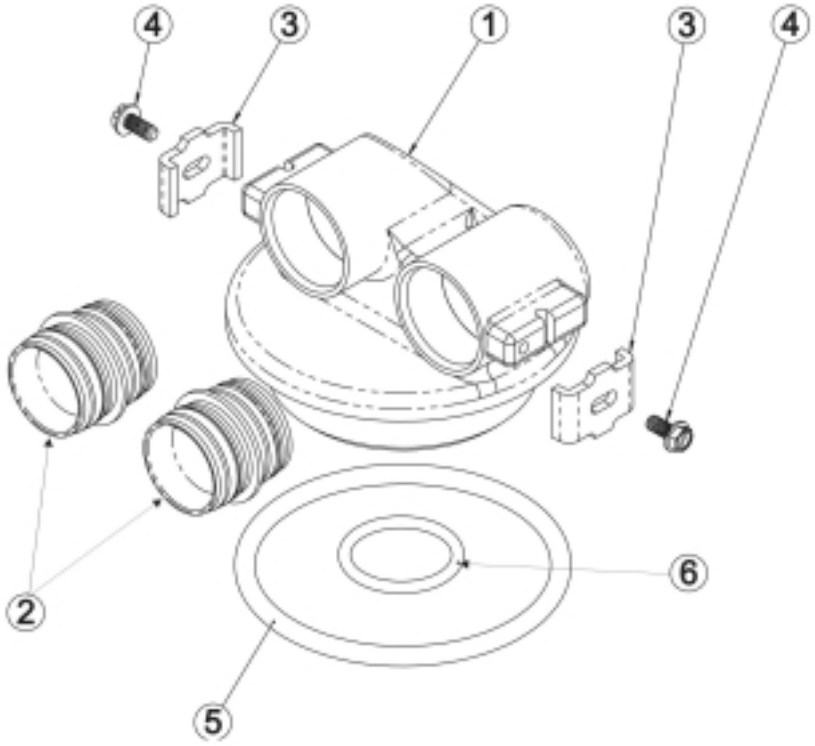
9 - VALVE BODY 9000



ITEM	QTY	P/N	DESCRIPTION	DÉSIGNATION
1.	1	13361	Injector spacer	Entretoise
2.	1	13497	Air disperser	Disperseur d'air
3.	1	14906	End plate	Plaque
4.	1	14928	End plug stud	Anneau bouchon de piston
5.	4	15137	Screw	Vis
6.	1	24233*	Injector assy 9000	Ensemble injecteur assemblé 9000
7.	1	24235	Lower piston assy 9000/9100	Piston inférieur assemblé 9000/9100
8.	1	25642	Seals and spacers kit for 9000/9100	Ensemble complet cages et joints 9000/9100
9.	1	14861-01	Valve body 9000	Corps de vanne 9000
10.	1	24234	Upper piston assy 9000/9100	Piston supérieur assemblé 9000
11.	1	26726	Injector spacer	Entretoise
12.	1	11710-01	Distributor o'ring	Joint torique distributeur
13.	1	12281-01	Base o'ring	Joint torique embase

* 24233: The sizes for injector, drain line flow control and brine line flow control have to be specified.

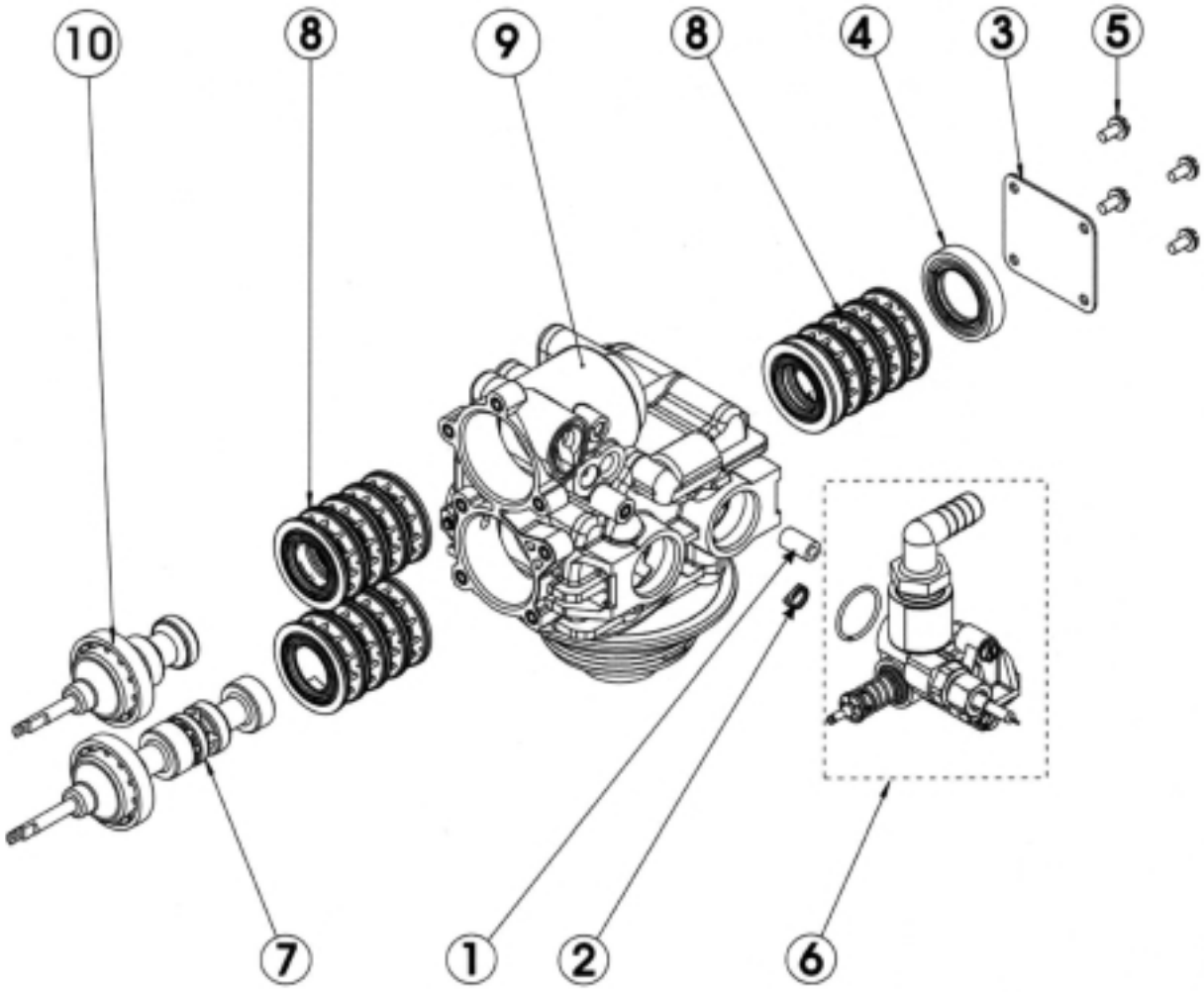
10 - SECOND TANK ADAPTER 9000



This assembly is sold under the reference: P/N 24238

ITEM	QTY	P/N	DESCRIPTION	DÉSIGNATION
1.	1	14864	2nd tank adapter	Adaptateur 2nd bouteille
2.	2	15078-01	Coupling assy 8500/9000	Coupleur assemblé pour 8500/9000
3.	2	13255	Clip	Clip
4.	2	14202-01	Screw	Vis
5.	1	12281-01	Base o'ring	Joint torique embase
6.	1	11710-01	Distributor o'ring	Joint torique distributeur

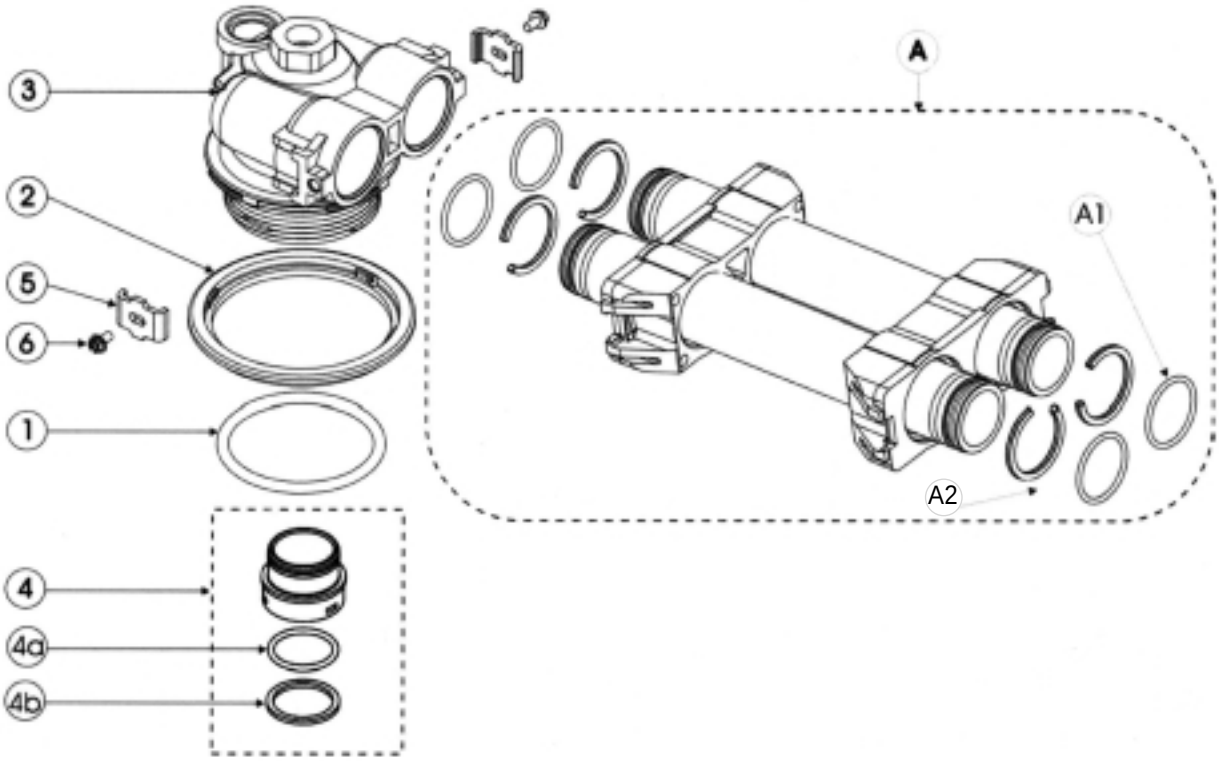
11 - VALVE BODY 9100



ITEM	QTY	P/N	DESCRIPTION	DÉSIGNATION
1.	1	13361	Injector spacer	Entretoise
2.	1	13497	Air disperser	Disperseur d'air
3.	1	14906	End plate	Plaque
4.	1	14928	End plug stud	Anneau bouchon de piston
5.	4	15137	Screw	Vis
6.	1	28244*	Injector assembly 9100	Ensemble injecteur 9100
7.	1	24235	Lower piston assy 9000/9100	Ensemble piston inférieur 9000/9100
8.	1	25642	Seals and spacers kit for 9000/9100	Ensemble complet joints et entretoises 9000/9100
9.	1	28241	Valve body & distributor adapter 9100	Corps de vanne et adaptateur du tube 9100
10.	1	24234	Upper piston assy 9000/9100	Ensemble piston supérieur 9000/9100

* 28244: The sizes for injector, drain line flow control and brine line flow control have to be specified.

12 - SECOND TANK ADAPTER 9100



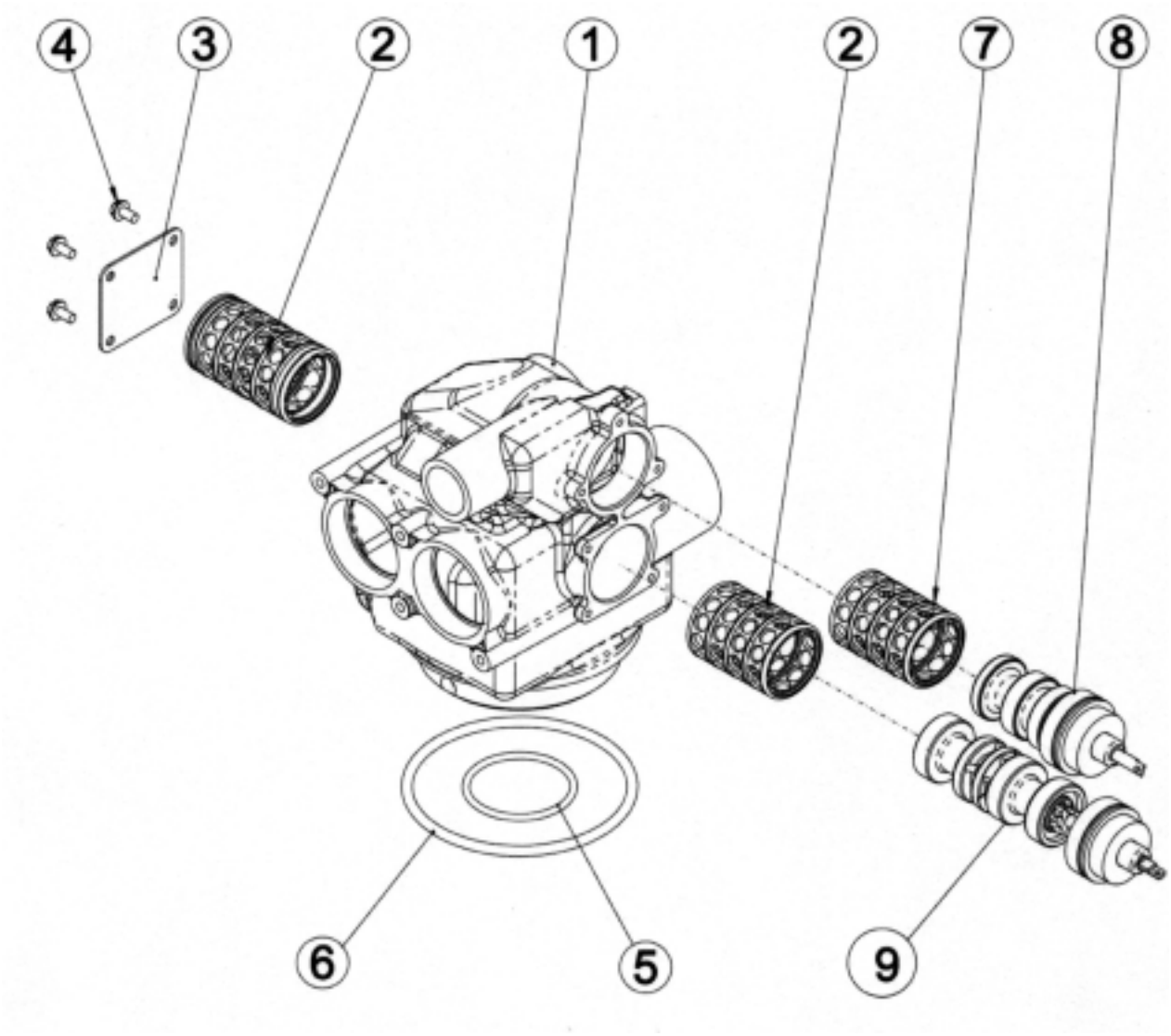
Adapter assembly P/N 28242

ITEM	QTY	P/N	DESCRIPTION	DÉSIGNATION
1.	1	18303-01	O'ring	Joint torique
2.	1	18569	Retainer tank seal	Maintien du joint
3.	1	40673	2nd tank adapter	Adaptateur de la seconde bouteille
4.	1	61419*	Distributor adapter	Kit de réduction
4a	1	13304-01	O'ring	Joint torique
4b	1	13030	O'ring retainer	Clip
5.	2	13255	Clip	Clip
6.	2	14202-01	Screw	Vis

ITEM	QTY	P/N	DESCRIPTION	DÉSIGNATION
A	1	28243-07	Tube assembly 9100 for 7" tank	Tubes assemblés 9100, bouteilles 7"
		28243-09	Tube assembly 9100 for 9" tank	Tubes assemblés 9100, bouteilles 9"
		28243-12	Tube assembly 9100 for 12" tank	Tubes assemblés 9100, bouteilles 12"
		28243-16	Tube assembly 9100 for 16" tank	Tubes assemblés 9100, bouteilles 16"
A1	4	13287-01	O'ring	Joint torique
A2	4	40678	Ring yoke retainer	Clip de retenue, yoke

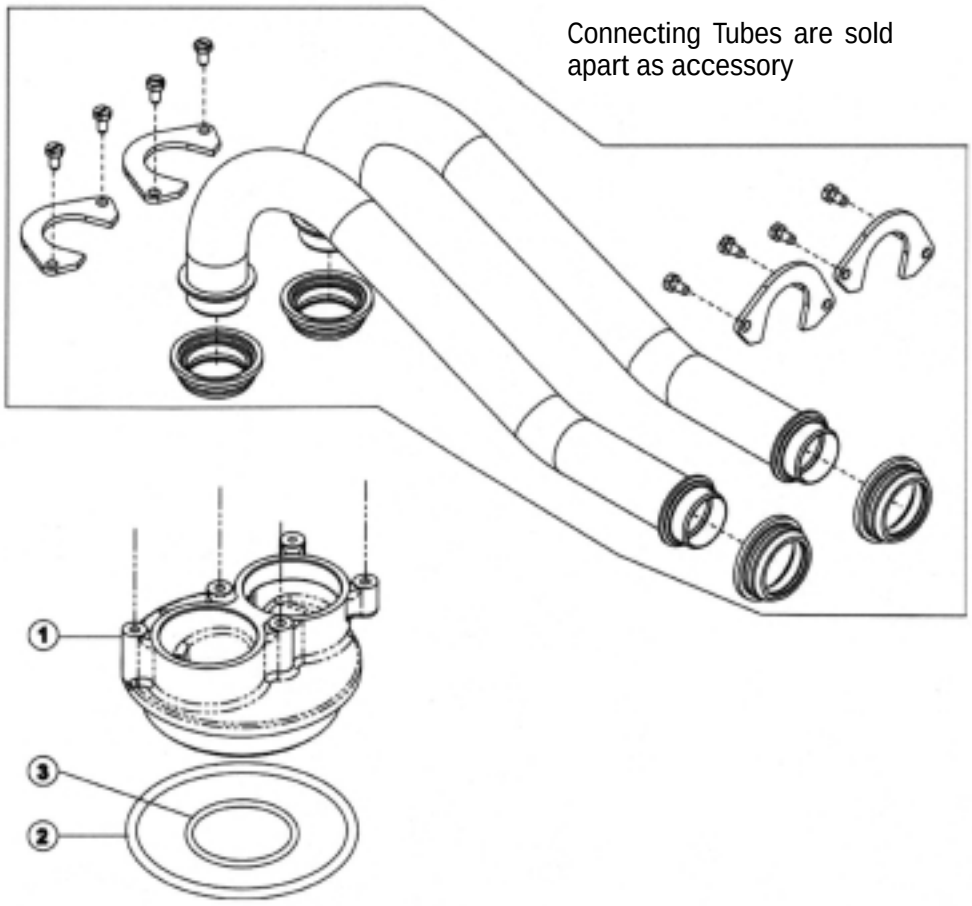
* 61419: Caution this adapter is assembled during the construction of the valve. This part cannot be removed.

13 - VALVE BODY 9500



ITEM	QTY	P/N	DESCRIPTION	DÉSIGNATION
1.	1	16919-21	Valve body 9500	Corps de vanne 9500
2.	1	18054	Lower seals and spacers kit 9500	Ensemble inférieur joints et cages
3.	1	14906	End plate	Plaque
4.	4	15137	Screw 10-24	Vis
5.	1	13577	Distributor o'ring	Joint torique distributeur
6.	1	16455	Base o'ring	Joint torique embase
7.	1	18129	Upper seals and spacers kit 9500	Ensemble supérieur joints et cages
8.	1	18052	Upper piston assy 9500	Ensemble piston supérieur 9500
9.	1	18053	Lower piston assy 9500	Ensemble piston inférieur 9500

14 - SECOND TANK ADAPTER

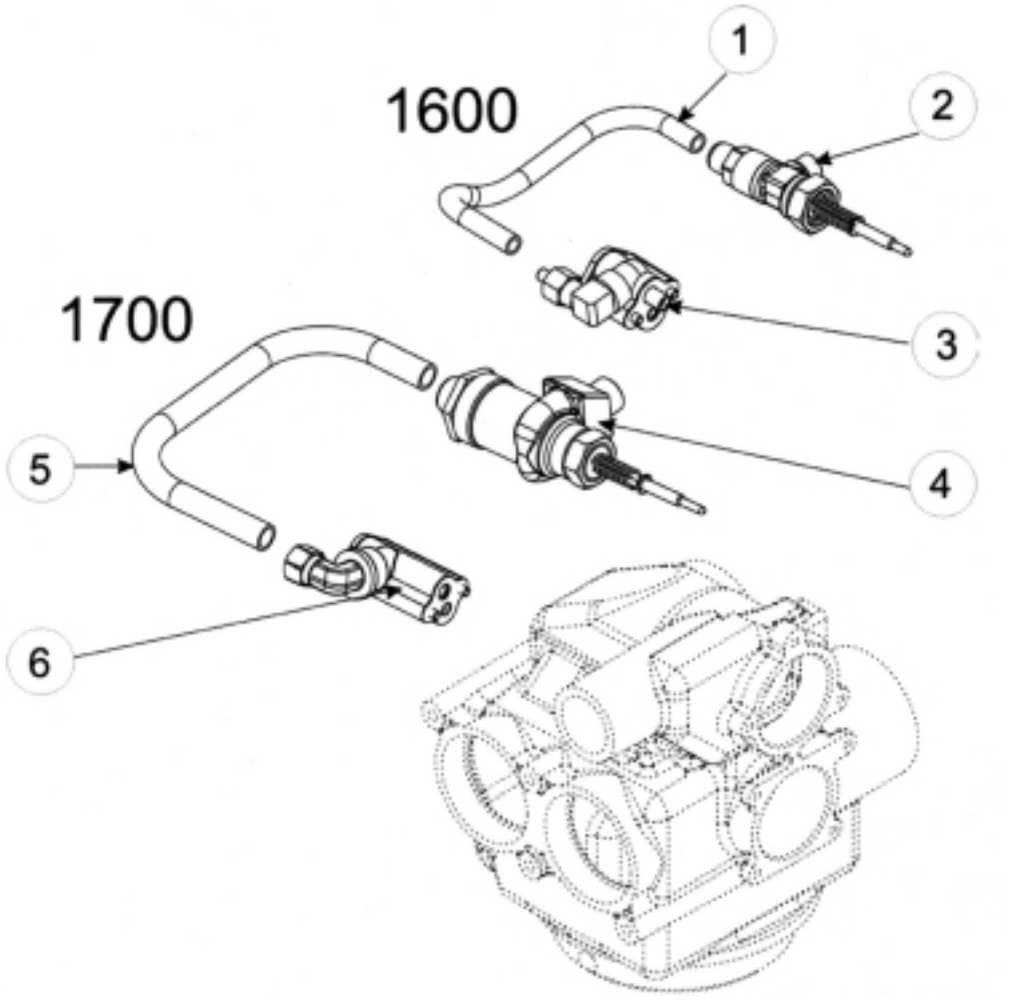


The whole adaptor is sold under the following reference:
- P/N 18050: that includes the o'rings and 4 additionnal screws

ITEM	QTY	P/N	DESCRIPTION	DÉSIGNATION
1.	1	16916-21	Second tank adapter 9500	Adaptateur de la seconde bouteille 9500
2.	1	16455-01	Base o'ring	Joint torique embase
3.	1	13577-01	Distributor o'ring	Joint torique distributeur

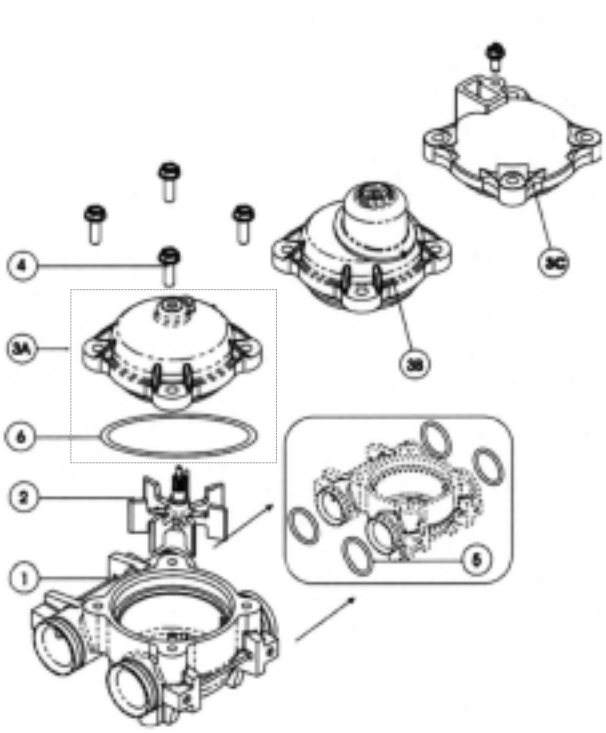
The connecting tubes are sold as an accessory
As the connecting tubes to the second tank adpater are sold separately, there are different possible sizes:
- P/N 28137-16: to be used with 16 inch diameter vessels.
- P/N 28137-20: to be used with 20 inch diameter vessels.
- P/N 28137-24: to be used with 24 inch diameter vessels.

15 - BRINE SYSTEMS 1600 & 1700 FOR 9500

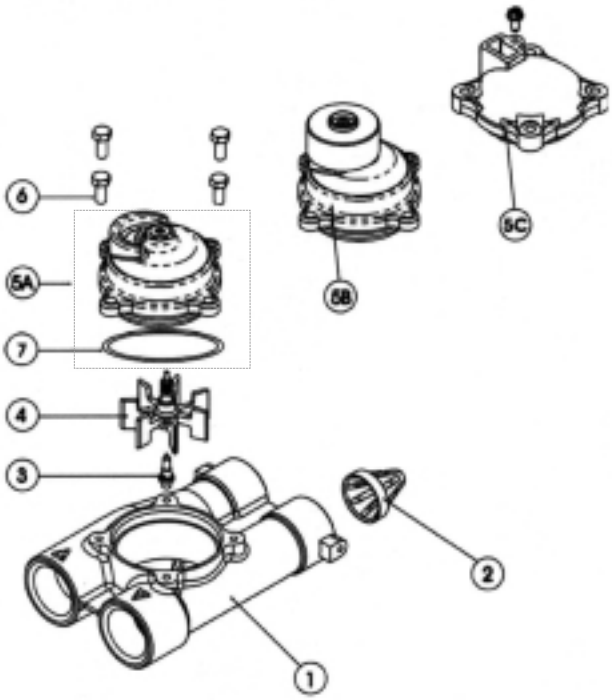


ITEM	QTY	P/N	DESCRIPTION	DÉSIGNATION
1.	1	16960	Brine tube 1600	Tube connexion vanne à saumure 1600
2.	1	18055-xx	Brine valve 1600 assy (specify BLFC size)	Vanne à saumure 1600 (spéc. taille BLFC)
3.	1	27150-xx	Injector 1600 assy (specify injector size)	Injecteur 1600 assemblé (spéc. taille injecteur)
4.	1	18057-xx	Brine valve 1700 assy (specify BLFC size)	Vanne à saumure 1700 (spéc. taille BLFC)
5.	1	28109	Brine tube 1700	Tube connexion vanne à saumure 1700
6.	1	27151-xx	Injector 1700 assy (specify injector size)	Injecteur 1700 assemblé (spéc. taille injecteur)

16 - 3/4” AND 1” METERS FOR 9000 & 9100



3/4” Meter



1” Meter

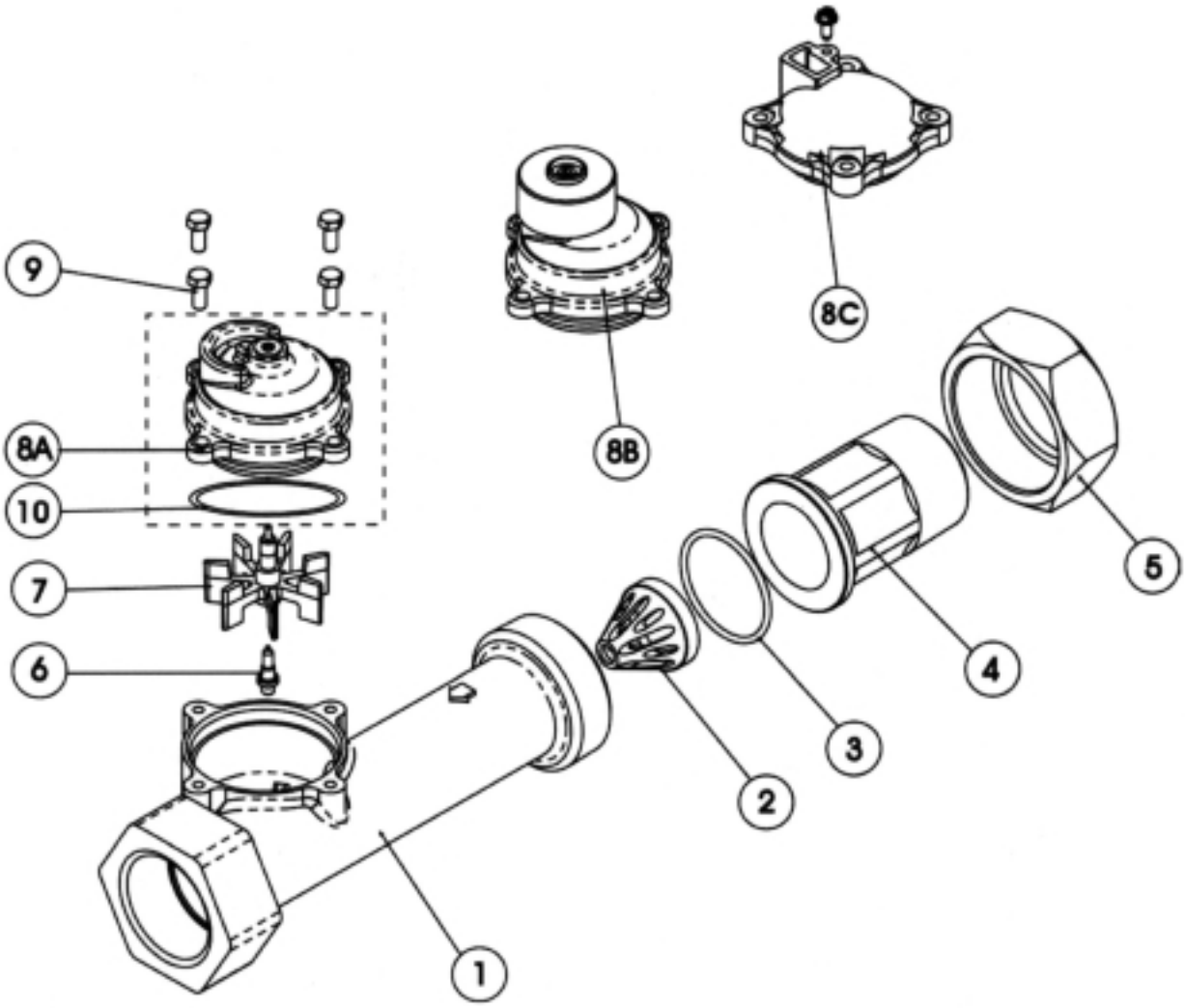
Reference of the 3/4” meter assembly 8m³ P/N 24107
Reference of the 3/4” meter assembly 40m³ P/N 24106
Reference of the 3/4” meter assembly electronic P/N 26702

ITEM	QTY	P/N	DESCRIPTION	DÉSIGNATION
1.	1	24102	Meter body 3/4” with o’rings	Corps de compteur avec joints toriques
2.	1	13509	Impeller	Turbine
3A.	1	14038	Meter cover assy 8m³	Couvercle de compteur assemblé 8m³
3B.	1	15150	Meter cover assy 40m³	Couvercle de compteur assemblé 40m³
3C.	1	18330	Meter cover MicroP	Couvercle de compteur assemblé électronique
4.	4	12473	Screw	Vis
5.	4	13305-01	O’ring	Joint torique
6.	1	13847	O’ring	Joint torique

Reference of the 1” meter assembly 20m³ P/N 24229
Reference of the 1” meter assembly 100m³ P/N 24228
Reference of the 1” meter assembly electronic P/N 27130

ITEM	QTY	P/N	DESCRIPTION	DÉSIGNATION
1.	1	15043-20	Meter body 1”	Corps de compteur 1”
2.	1	14960	Flow straightener	Egaliseur de flux
3.	1	13882	Impeller post	Axe de turbine
4.	1	13509	Impeller	Turbine
5A.	1	15218	Meter cover assy 20m³	Couvercle de compteur assemblé 20m³
5B.	1	15237	Meter cover assy 100m³	Couvercle de compteur assemblé 100m³
5C.	1	18330	Meter cover MicroP	Couvercle de compteur assemblé électronique
6.	4	11737	Screw	Vis
7.	1	13847	O’ring	Joint torique

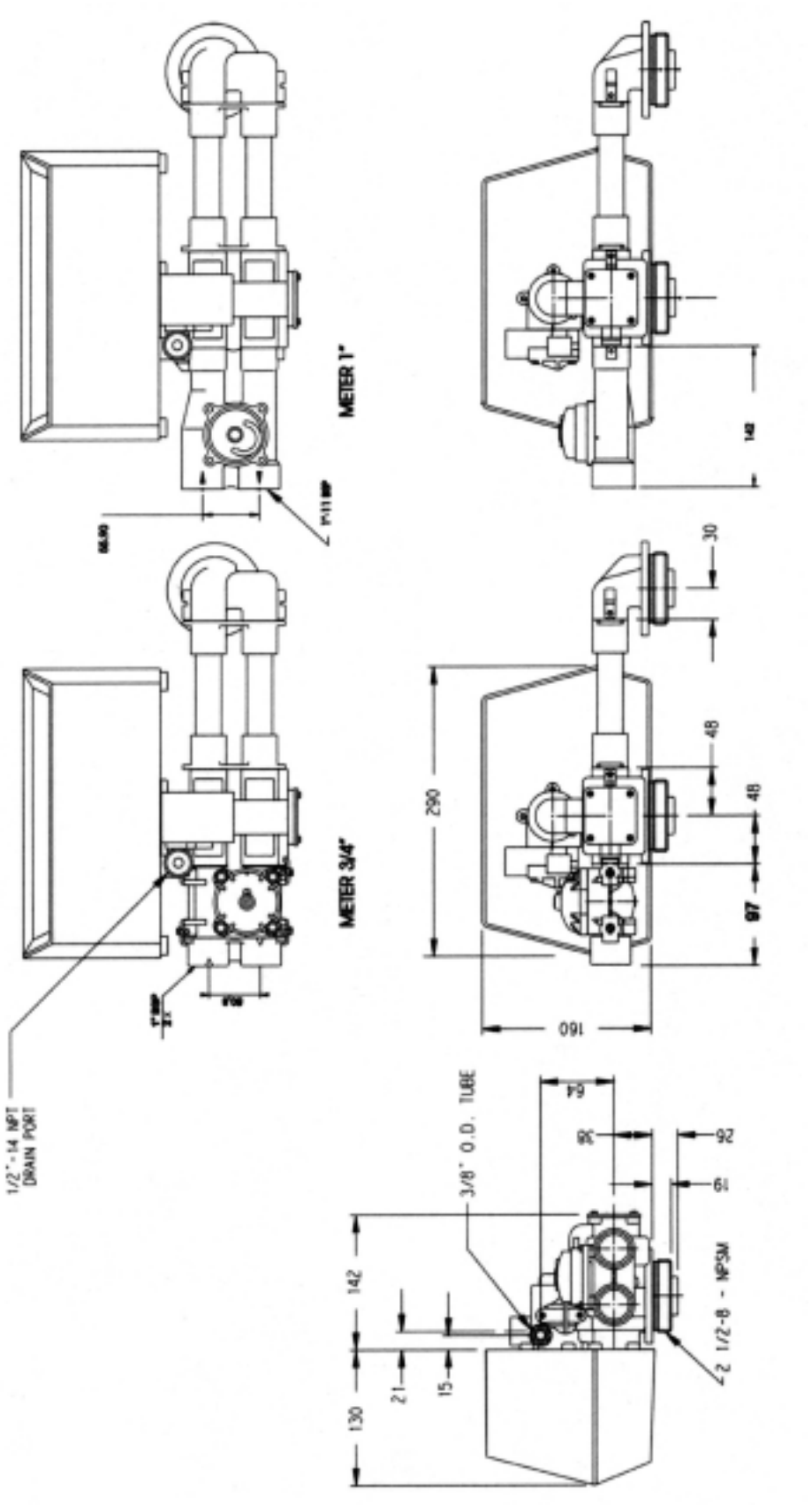
17 - 1 1/2” METER FOR 9500



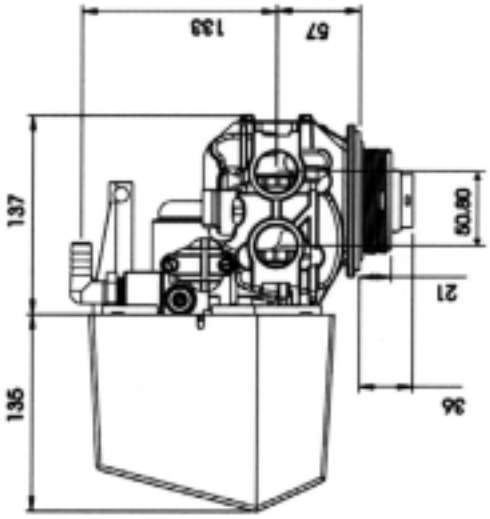
Reference of the 1 1/2” meter assembly 40m³ P/N 18509
Reference of the 1 1/2” meter assembly 200m³ P/N 18508
Reference of the 1 1/2” meter assembly electronic P/N 28076

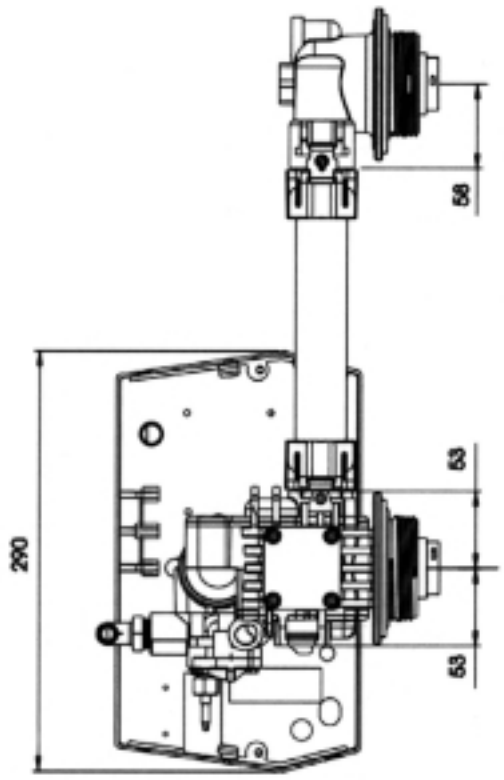
ITEM	QTY	P/N	DESCRIPTION	DÉSIGNATION
1.	1	27957	Meter body 1 1/2”	Corps de compteur 1 1/2”
2.	1	17542	Flow straightener	Egaliseur de flux
3.	1	12733	O’ring	Joint torique
4.	1	27981	Quick connect nipple 1 1/2”	Connexion 1 1/2”
5.	1	17543	Quick connect nut	Ecrou
6.	1	13882	Impeller post	Axe de turbine
7.	1	13509	Impeller	Turbine
8A.	1	15218	Meter cover assy 40m³	Couvercle de compteur assemblé 40m³
8B.	1	15237	Meter cover assy 200m³	Couvercle de compteur assemblé 200m³
8C.	1	18330	Meter cover MicroP	Couvercle de compteur assemblé électronique
9.	4	11737	Screw	Vis

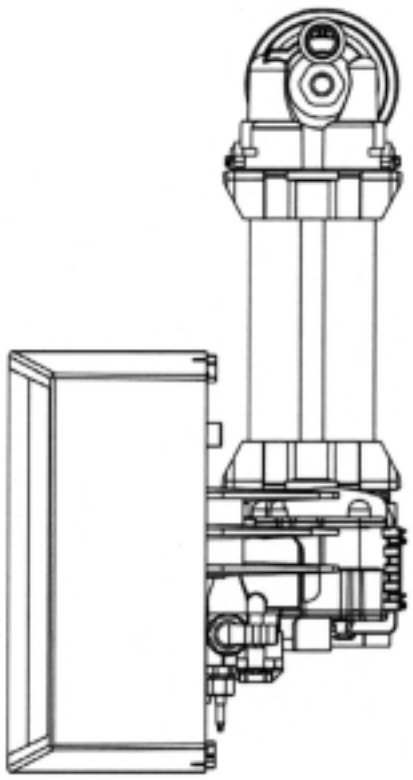
18 - 9000 3/4” AND 1” DIMENSIONS



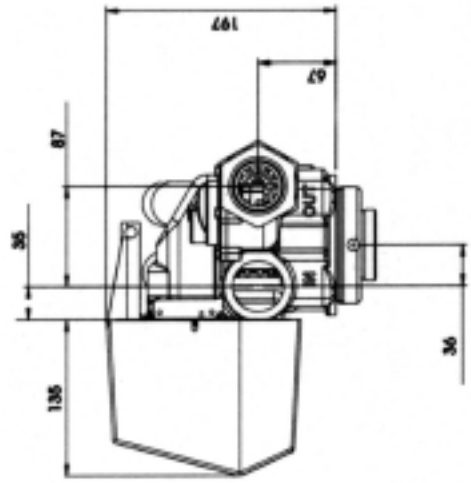
18 - 9100 DIMENSIONS

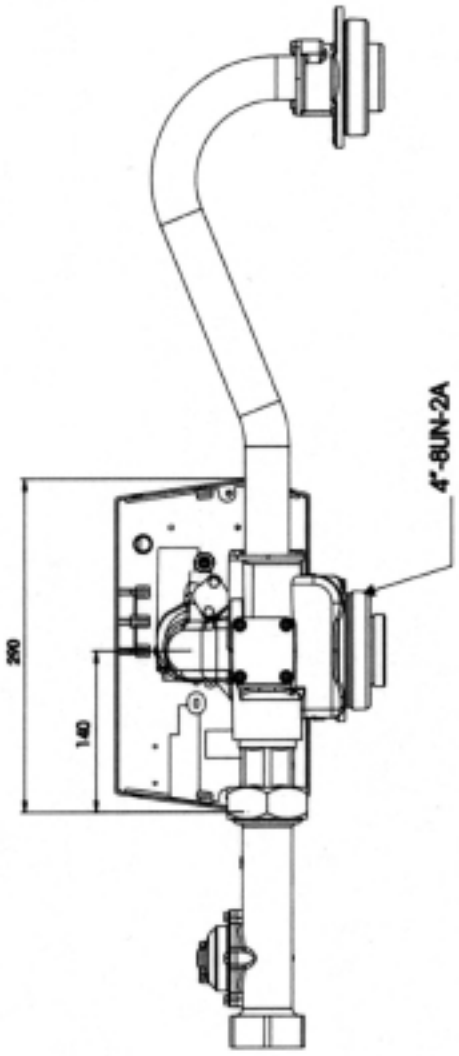


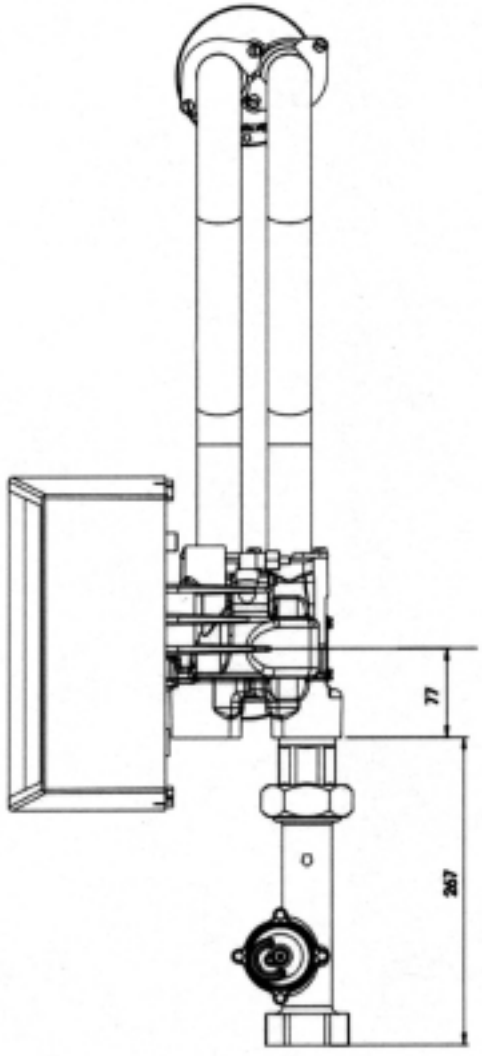




18 - 9500 DIMENSIONS







19 - TROUBLESHOOTING

INCIDENT	CAUSE	SOLUTION
1. Softener fails to regenerate	A. Interrupted power	A. Restore electrics (mains, fuse)
	B. Defective power head	B. Change power head
	C. Unpluged meter cable	C. Check connections of the time rand on the meter cover.
	D. Blocked meter	D. Clean or change meter
	E. Defective motor	E. Change motor
	F. Wrong programming	F. Check programming and modify if necessary
2. Softener delivers hard water	A. By-pass in “by-pass” position	A. Put by pass in “service” position
	B. No salt in the brine tank	B. Add salt in the brine tank and keep salt level above water level.
	C. Blocked injector and/or filter	C. Clean or replace filtre or injector
	D. Not enough water in the brine tank	D. Check brine tank filling time and clean flow regulator.
	E. Hardness arriving from hot water supply	E. Repeated flushing of the hot water tank
	F. Leak at the distributor tube	F. Ensure the distributor tube has no cracks. Check the O’ring.
	G. Internal valve leak	G. Change seals & spacers and/or piston
	H. Blocked meter	H. Unblock the meter
	I. Meter cable unplugged	I. Check cable connections in the power head and on the meter cover.
	J. Wrong programming	J. Check programming and modify if necessary.
3. Excesssive salt consumption	A. Improper brine refill setting	A. Check use of salt and setting of brine refill.
	B. Too much water in the brine tank	B. See problem n°6
	C. Wrong programming	C. Check programming and modify if necessary
4. Water pressure drop	A. Iron deposit in the softener inlet.	A. Clean the inlet
	B. Iron deposit in the softener	B. Clean valve and resin
	C. Valve inlet obstructed by foreign elements.	C. Remove piston and clean valve
5. Iron presence in softener	A. The resin bed is dirty	A. Check backwash, brine draw and brine refill. Regenerate more often and increase backwash cycle time.
	B. Iron concentration exceeds recommended values.	B. Contact dealer
6. Too much water in the brine tank	A. Plugged drain line flow control (DLFC)	A. Check flow regulator
	B. Faulty brine valve	B. Change brine valve
	C. Wrong programming	C. Check programming and modify if necessary

19 - TROUBLESHOOTING (CTD')

INCIDENT	CAUSE	REMEDE
7. Salted water in service line	A. Filter and injector blocked	A. Clean injector and filter
	B. Power head not operating proper cycles	B. Change power head
	C. Foreign elements in brine valve	C. Change brine valve seat and clean it.
	D. Foreign elements in the brine line flow control (BLFC)	D. Clean BLFC
	E. Low water pressure	E. Raise inlet pressure to 1,8 bar minimum
	F. Wrong programming	F. Check programming and modify if necessary
8. No brine draw	A. Plugged drain line flow control (DLFC)	A. Clean drain line flow control
	B. Plugged filter and injectors	B. Clean filter and injector, change if necessary
	C. Low water pressure	C. Increase inlet pressure to 1,8 bar minimum
	D. Internal valve leak	D. Change seal, spacers and/or piston assembly
	E. Wrong programming	E. Check programming and modify if necessary
	F. Power head not operating properly	F. Change power head
9. The valve regenerates constantly	A. Faulty power head	A. Change power head
	B. Faulty microswitch or wiring loom	B. Change microswitch or wiring loom
	C. Defective or badly set cycle cam	C. Reposition or change cycle cam
10. Constant leakage to the drain	A. Foreign elements in the valve	A. Clean valve and check it in the different regeneration positions
	B. Internal valve leak	B. Change seals & spacers and/or piston assembly
	C. Valve blocked in brine refill or backwash	C. Change seals & spacers and/or piston assembly
	D. Defective or blocked timer motor	D. Change motor and check gear teeth
	E. Powerhead not operating properly	E. Change power head