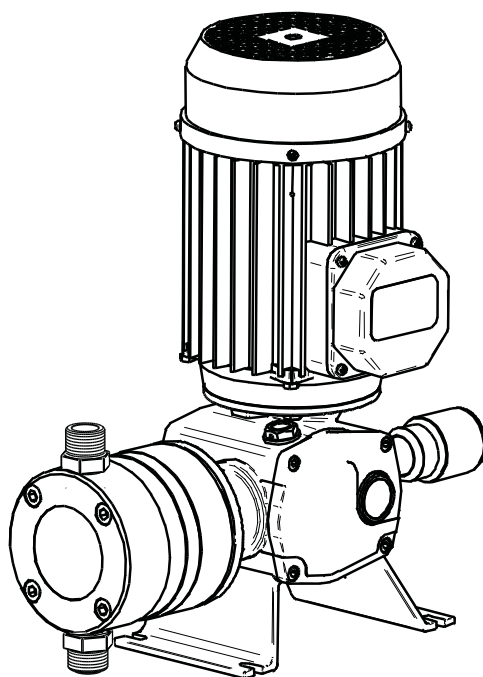




Management
System
ISO 9001:2008



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 **DOSTEC-40**

ENGLISH



SAFETY RULES

To avoid personal or enviromental damages and to guarantee a proper operation of the equipment, the staff in charge of the installation, set up and maintenance of the equipment must follow the instructions of this manual, specially those recommendations and warnings explicitly detailed. In addition, specific instructions for the chemical products to be dosed should be followed.

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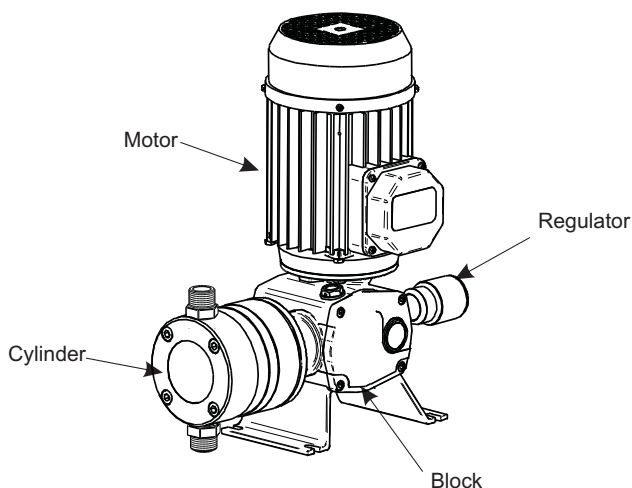
1.- GENERAL DESCRIPTION

DOSTEC-40 dosing pumps are heavy duty, high precision, piston or diaphragm pumps for dosing liquid products.

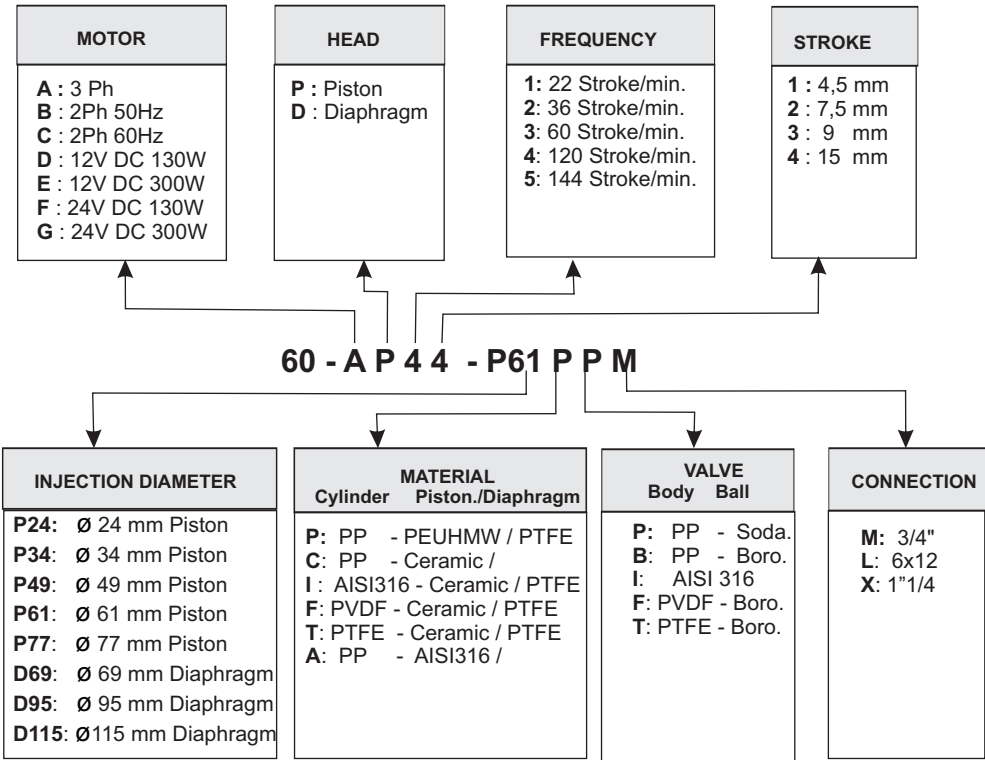
This series allows many injection possibilities depending on the head being chosen. The available heads are from 2,5 to 600 l/h for the piston series, and from 5 to 300 l/h for the diaphragm series.

DOSTEC-40 dosing pumps are manufactured with materials that can resist most chemicals products, even acids. They are designed for all sorts of processes where it is necessary to dose a product into a hydraulic network, such as: food, textile, chemical industry, water treatments, etc. (See materials in Technical Features). In case there is any doubt about compatibility of materials with the products to be used please contact ITC S.L. Technical Service.

Dosing flow of each module is adjustable independently with no need to stop the pump from 0% to 100% of its capacity.



Code formulation



2.- UNPACKING AND STORAGE

The original packing is prepared so that carriage and storing of the product do not cause any damage to the product, as long as this is done far from heat sources and in dry, ventilated spaces.

Inside packing we include:

- DOSTEC-40 dosing pump
- Manual
- Oil (250cm³)

3.- TECHNICAL FEATURES

	CODE	FLOW				PRESSURE		**Suction lift	
		50Hz		60Hz		bar	PSI	m	ft
		l/h	GPH	l/h	GPH				
Piston	60-AP11-P24_L	2,5	0.6	3	0.8	20/15	217	9	30
	60-AP13-P24_L	5	1.3	6	1.6	20/15	217	9	30
	60-AP14-P24_L	9	2.4	10.5	2.7	20/15	217	9	30
	60-AP33-P24_L	15	4	18	4.7	20/15	217	9	30
	60-AP34-P24_L	25	6.6	30	8	20/15	217	9	30
	*60-AP53-P24_L	36	9.5	-	-	15	217	9	30
	60-AP44-P24_L	50	13.2	60	16	15	217	9	30
	60-AP34-P34_M	50	13.2	60	16	15	217	9	30
	*60-AP53-P34_M	72	19	-	-	15	217	9	30
	60-AP32-P61_M	75	20	90	24	7	100	6	20
	60-AP44-P34_M	100	26.4	120	31.7	15	217	9	30
	60-AP34-P49_M	100	26.4	120	31.7	11	160	8	26
	*60-AP54-P34_M	120	31.7	-	-	15	217	9	30
	*60-AP53-P49_M	144	38.7	-	-	11	160	8	26
	60-AP34-P61_M	150	40	180	48	7	100	6	20
	60-AP44-P49_M	200	52.8	240	63.4	11	160	8	26
	*60-AP54-P49_M	240	63.4	-	-	11	160	8	26
	60-AP34-P77_M	250	66	300	79	4.5	65	5	16
	60-AP44-P61_M	300	79	360	95	7	100	5	16
	*60-AP54-P61_M	360	95	-	-	7	100	4	13
	60-AP44-P77_M	500	132	600	158	4.5	65	1,5	5
	*60-AP54-P77_M	600	158	-	-	4	58	0,5	2
Diaphragm	60-AD11-D69_L	5,5-8	1.4-2.1	6.5-9.5	1.7-2.5	15	217	9	30
	60-AD21-D69_L	9,5-13	2.5-3.4	11.5-15.5	3-4	15	217	9	30
	60-AD31-D69_L	16-22	4.2-5.8	19-26	5-7	15	217	9	30
	60-AD41-D69_L	32-44	8.4-11.6	38-53	9.6-14	15	217	9	30
	60-AD33-D69_M	35-47	9.2-12.4	42-56	11-15	10	145	4	13
	*60-AD51-D69_L	38-53	10-14	-	-	15	217	9	30
	60-AD42-D69_M	57-77	15-20.3	68-92	18-24.6	10	145	8	26
	60-AD32-D95_M	60-73	15.9-19.3	72-88	19-23.1	8	116	9	30
	60-AD43-D69_M	69-93	18.2-24.5	83-111	22-29.4	10	145	4	13
	60-AD33-D95_M	72-87	19-23	86-104	22.8-27.6	8	116	9	30
	*60-AD51-D95_M	86-104	22.7-27.5	-	-	8	116	9	30
	60-AD32-D115_M	105-119	27.7-31.4	126-143	33-38	5	72	9	30
	60-AD42-D95_M	120-144	31.7-38	144-173	38-45.6	8	116	9	30
	60-AD33-D115_M	126-143	33.3-37.8	151-172	40-45	5	72	8	26
	60-AD43-D95_M	144-174	38-46	173-209	45.6-55	8	116	8	26
	*60-AD53-D95_M	173-209	45.7-55.2	-	-	8	116	8	26
	60-AD42-D115_M	209-237	55.2-62.6	251-284	66-75	5	72	8	26
	60-AD43-D115_M	251-285	66.3-75.3	301-342	79-90	5	72	7	23
	*60-AD53-D115_M	301-342	79.5-90.3	-	-	5	72	7	23

20bars models only with ceramic piston

Models with _L include priming valve

*Can not work at 60Hz

** Suction lift when dosing head an suction pipe are full. Tested with water at 20°C

POWER: 0.37 KW (0.5 Hp)

PROTECTION : IP-55

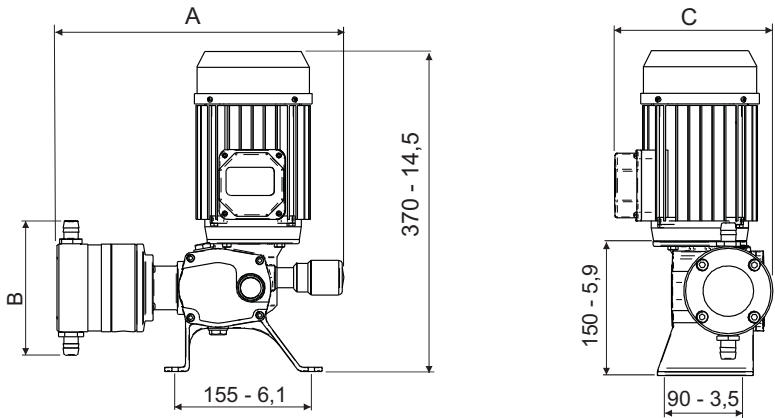
NOISE LEVEL dB(A): minor than 70

WEIGH: 10 Kg (22 lb) / 15 Kg (33 lb)

MATERIALS:

Piston:	PEUHMW / Ceramic
Diaphragm:	Elastomer base reinforced with fiber and P.T.F.E clothing
Retention:	FPM
Cylinder:	P.P. / SS 316 / PVDF / PTFE
Valve (body):	P.P. / SS 316 / PVDF / PTFE
Valve (ball):	glass / glass borosilicate / ceramic
Ring gear :	Bronze
Pinion:	F-154
Block:	Aluminium cast
Shaft :	F-154

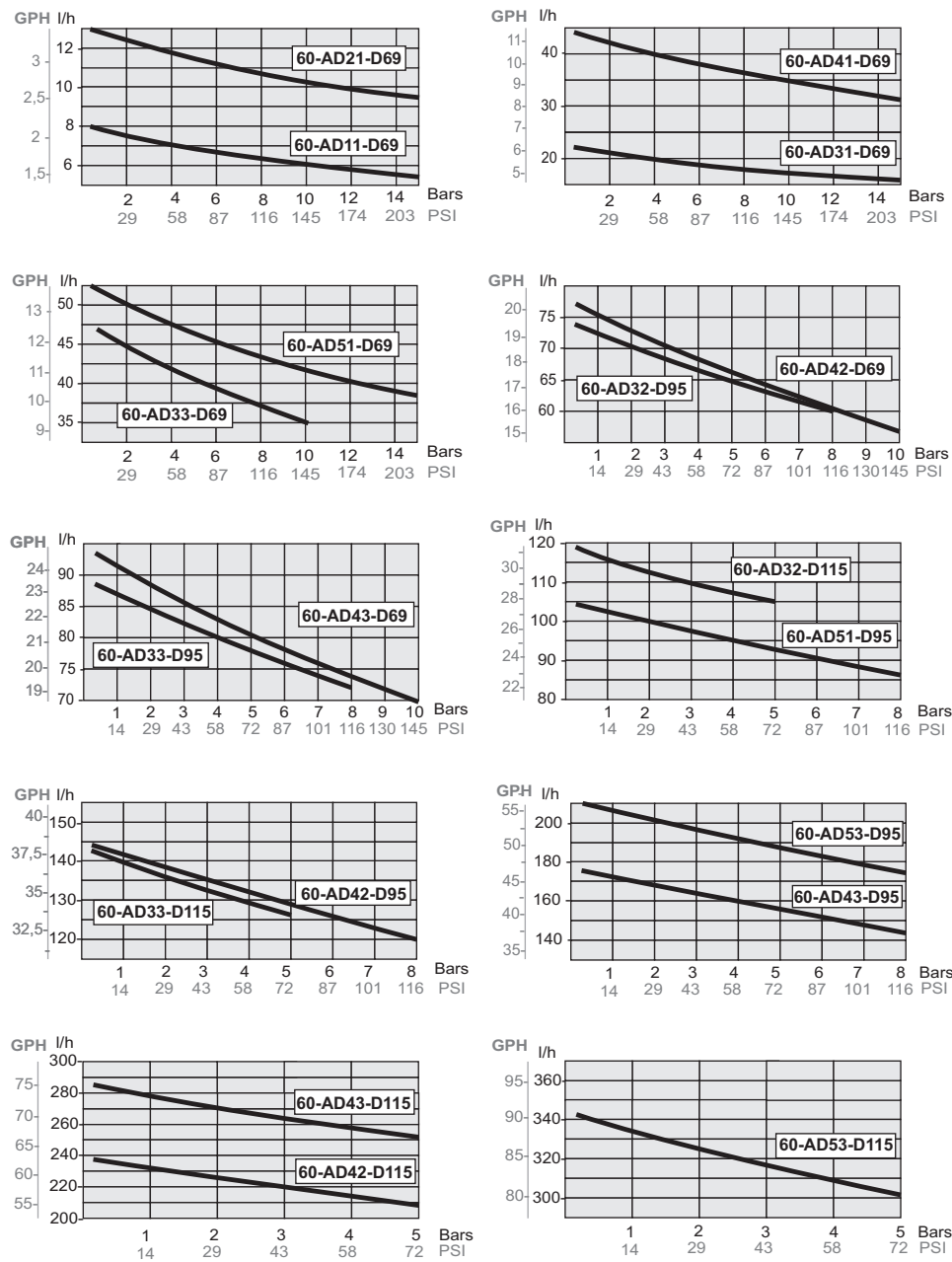
DIMENSIONS



mm		Ø	A	B	C
		P77	320	175	205
		Rest	320	154	195
		Ø	A	B	C
		D69	280	154	195
		D95	285	184	195
		D115	285	204	207

in		Ø	A	B	C
		P77	12,6	6,9	8
		Rest	12,6	6	7,6
		Ø	A	B	C
		D69	11	6	7,6
		D95	11,2	7,2	7,6
		D115	11,2	8	8,1

DIAPHRAGM PUMP FLOW - PRESSURE GRAPHICS

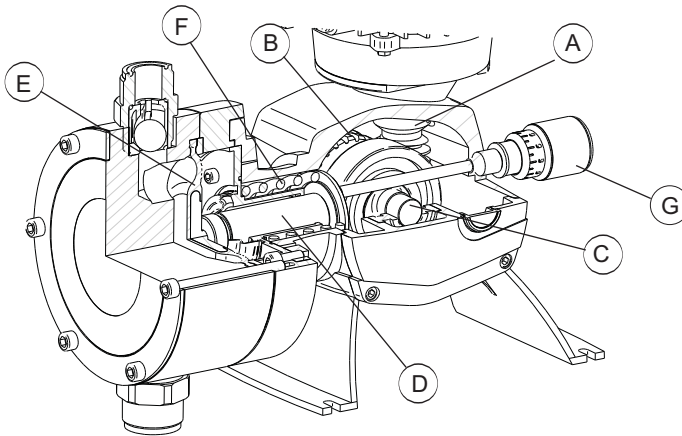


4.- OPERATION

The rotational motion of the motor is transmitted by the gear box that consists of two major components, the pinion (**A**) and the ring gear (**B**). The pinion and the ring gear are linked to an axis with an eccentric bearing (**C**) that pushes the shaft (**D**) which is threaded to the diaphragm or the piston (**E**). The return movement is made by the spring (**F**).

While the pump is running the stroke length can be regulated by the flow regulator knob (**G**). It increase or reduce the discharge or suction's strokes, either the piston or the diaphragm, changing the injection flow. The dosing flow can be adjusted between 0% and 100%.

The flow can be adjustable through an inverter, which will vary the engine speed of the pump and will allow regulate the dosing flow between 10% and 100%.



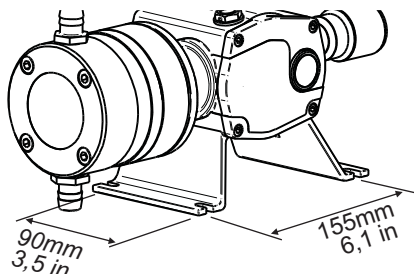
5.- INSTALLATION

GENERALITIES

To install this pump it is advisable to choose places protected from water, away from heat sources and with air renewal.

Place the pump vertically over a totally rigid surface to achieve a proper lubrication of all inner elements. Anticipate which will be the room you will need to comfortably do the basic maintenance and install / desinstall the pump.

Fix the pump on the chosen flat surface by means of 4 screws.



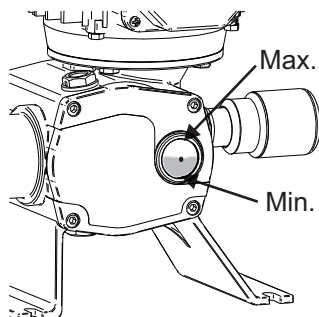
BLOCK

Remove the oil cap for transport , fill the pump with the SAE oil 80W90 being supplied (or similar oil) up to the level shown on the screen, and put on the working cap (black with a hole).

Approximate oil contents 250cm³

Oils list:

CEPSA SAE80W90
REPSOL EP 80W/90
SHELL SPIRLAXHD OIL 80W/90
ESSO GEAR OIL 80W/90
AGIP ROTRA MP 80W-90
MOBILUDE HD 80W-90
BP ENERGEAR HT 80W-90
CATROL HYPOYC
GULF GEAR MP SAE 80W 90
ELF TRANSGEAR HD 80W-90



ELECTRICAL CONNECTION



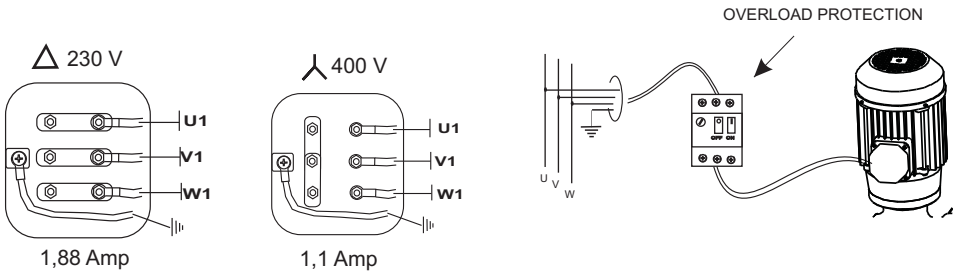
The electric protection of the motor must be installed and adjusted following its nominal intensity (overloaded switch disjuntor). (See wiring).

A dispositive disconnection must be installed in case of emergency.

The equipment must be protected to avoid untimely sudden starts.

THREE-PHASE CONNECTION (50/60 Hz)

To work at 230 V we will plug the motor in triangle. Installing a protection.
To work at 400 V it will be a star connection. Installing a protection.

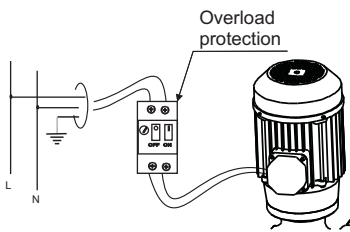


SINGLE PHASE CONNECTION

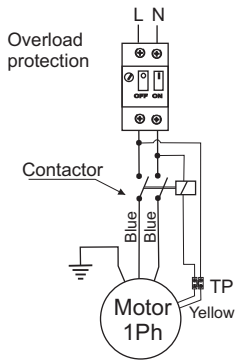
Install the correct motor protection (Overload protection).

Motor 230V 50Hz **2.9 Amp.**

Motor 110V 60Hz **8.1 Amp.**

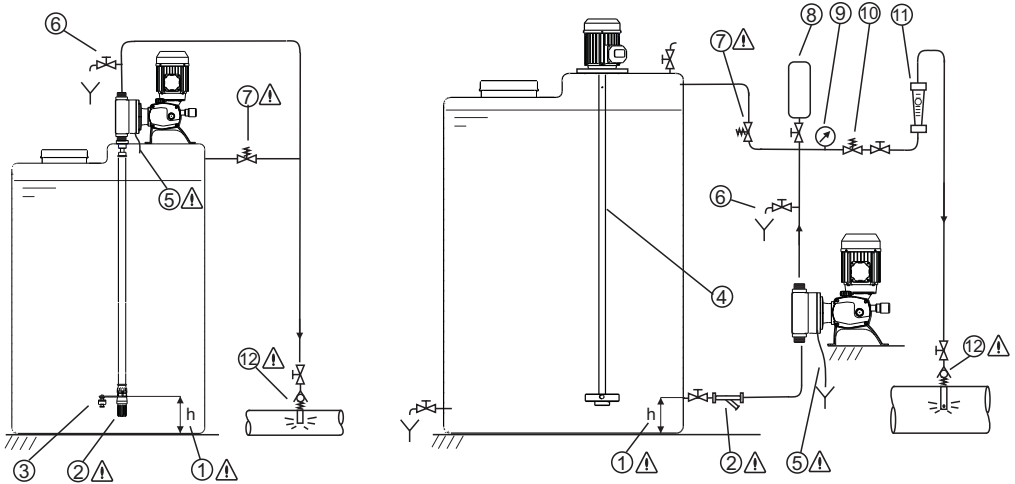


Wiring with Thermal Protection



HYDRAULIC INSTALLATION

Installation examples

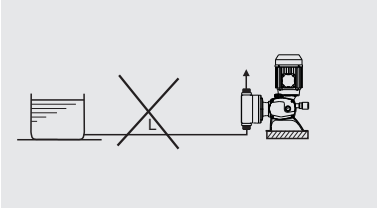


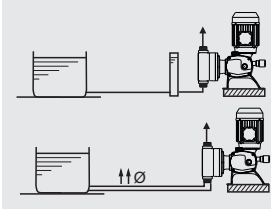
- ⚠ ① Avoid suctioning the undiluted particles from the bottom of the tank.
- ⚠ ② Filter. It is important to install a filter (150 micron) in the suction pipe.
- ③ Level sensor
- ④ Agitator
- ⚠ ⑤ Make sure to collect any liquid leakage from the cylinder's vent/drain hole in a proper container.
- ⑥ Prime valve / drain valve
- ⚠ ⑦ Safety relief valve. Install a safety valve in a derivation as near as possible from the pump, in order to protect it and the whole installation from possible over-pressures. This derivation must derive liquid to a safe place.
- ⑧ Pulsation dampener
- ⑨ Pressure gauge
- ⑩ Pressure regulating valve
- ⑪ Flowmeter
- ⚠ ⑫ Injection check valve

Recomendations for correct installation

SUCTION PIPE

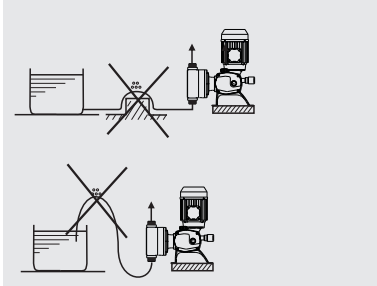
⚠ Long suction pipe: $L > 2\text{m}$ (6.5ft)

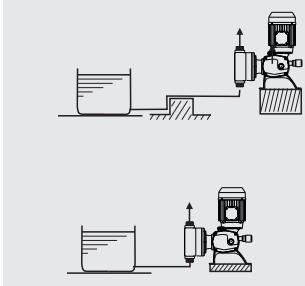


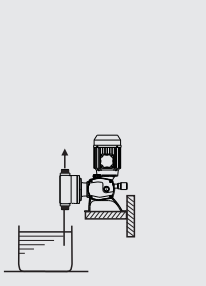


RECOMENDED PIPE SIZE		
Øint	$L \leq 2\text{ m}$	$L \leq 5\text{ m}$
6	50	25
15	300	100
20		200
25		300
Q max (l/h)		

⚠ Air in suction pipe

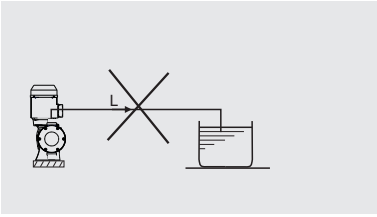


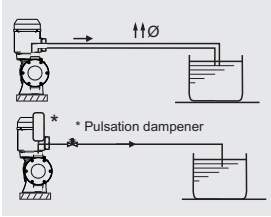




DISCHARGE PIPE

⚠ Long discharge pipe: $L > 5\text{m}$ (16 ft)

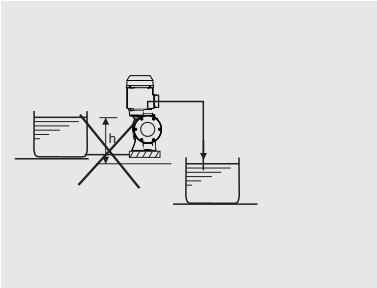


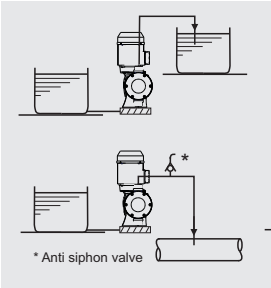


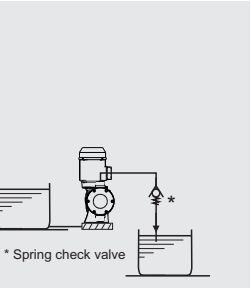
RECOMENDED PIPE SIZE		
Øint	$L \leq 2\text{ m}$	$L \leq 10\text{ m}$
6	80	10
15	300	70
20		100
25		200
30		300
Q max (l/h)		

* Pulsation dampener

⚠ Siphon







* Anti siphon valve

* Spring check valve

6.- START UP AND REGULATION



STAND: Check that the pump is properly installed in its stand.



OIL: Take off re-filling lid and fill the pump with the provided oil: SAE 80 W 90 or equivalent.

Lubricants list:

CEPSA SAE 80W 90
REPSOL EP 80W/90
SHELL SPIRLAX HD OIL 80W/90
ESSO GEAR OIL 80W/90
AGIP ROTRA MP 80W-90
MOBILUDE HD 80W-90
BP ENERGEAR HT 80W-90
CASTROL HYPOYC
GULF GEAR MP SAE 80W 90
ELF TRANSGEAR HD 80W-90

Check the oil level watching the oil peep hole
Approximate oil capacity: 100 cm³ per module.
When carrying, change filling lid for working lid.



CHECKING THE HYDRAULIC CIRCUIT: Check that all valves are opened and that escapes from priming valves derive the liquid to a proper receptacle.



ROTARY DIRECTION: Start up the pump to check that the rotary direction coincides with the one shown by the arrow. To change rotary direction invert two phases in the motor terminals box.



CHECKING OF PUMP: Check visually/auditorilly the proper working of the pump.

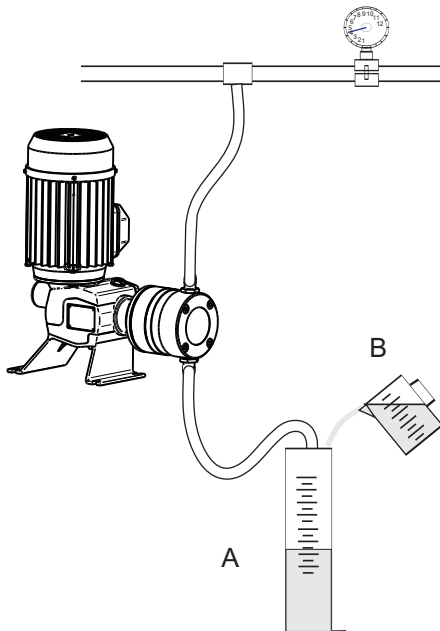
DOSING FLOW

Through the micrometric regulator, the dosing flow can be adjusted from 0 to 100% depending on the wished value. It is not advisable a regulation under 10%.

In order to check the dosing flow:

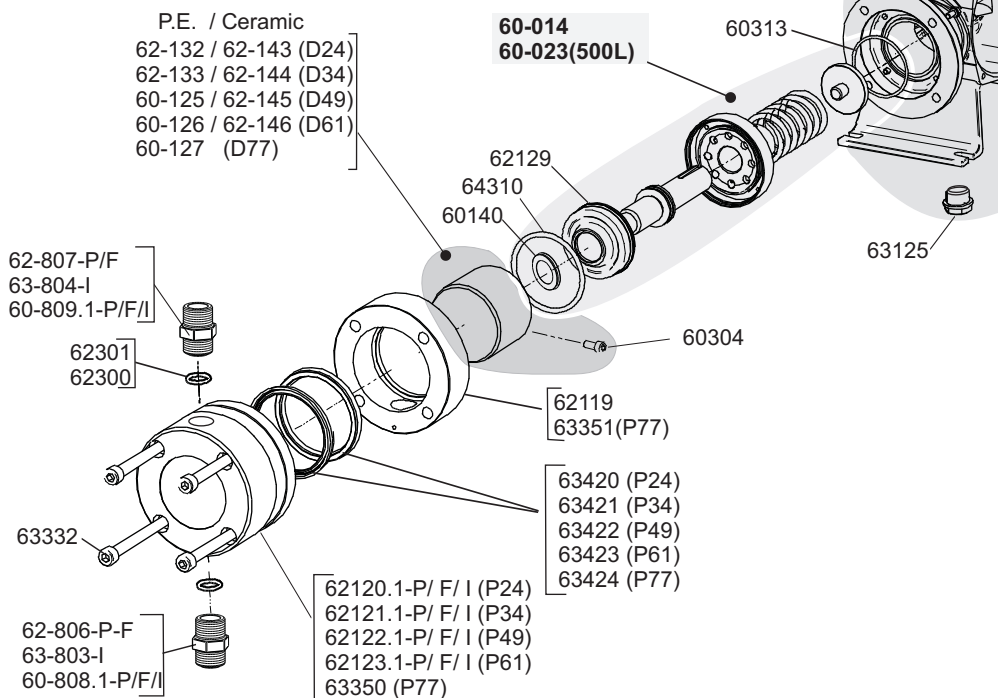
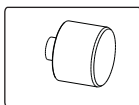
- 1.- Prime the pump immersing the suction pipe in a graduated receptacle (A).
- 2.- Mark in the receptacle the liquid level.
- 3.- Start up the pump and pour a known volume (V) of measured liquid in a second receptacle (B).
- 4.- Measure the time (t) that goes between the start up of the pump and the precise instant in which the liquid reaches the level of the mark receptacle A.
- 5.- The dosed flows corresponds to:

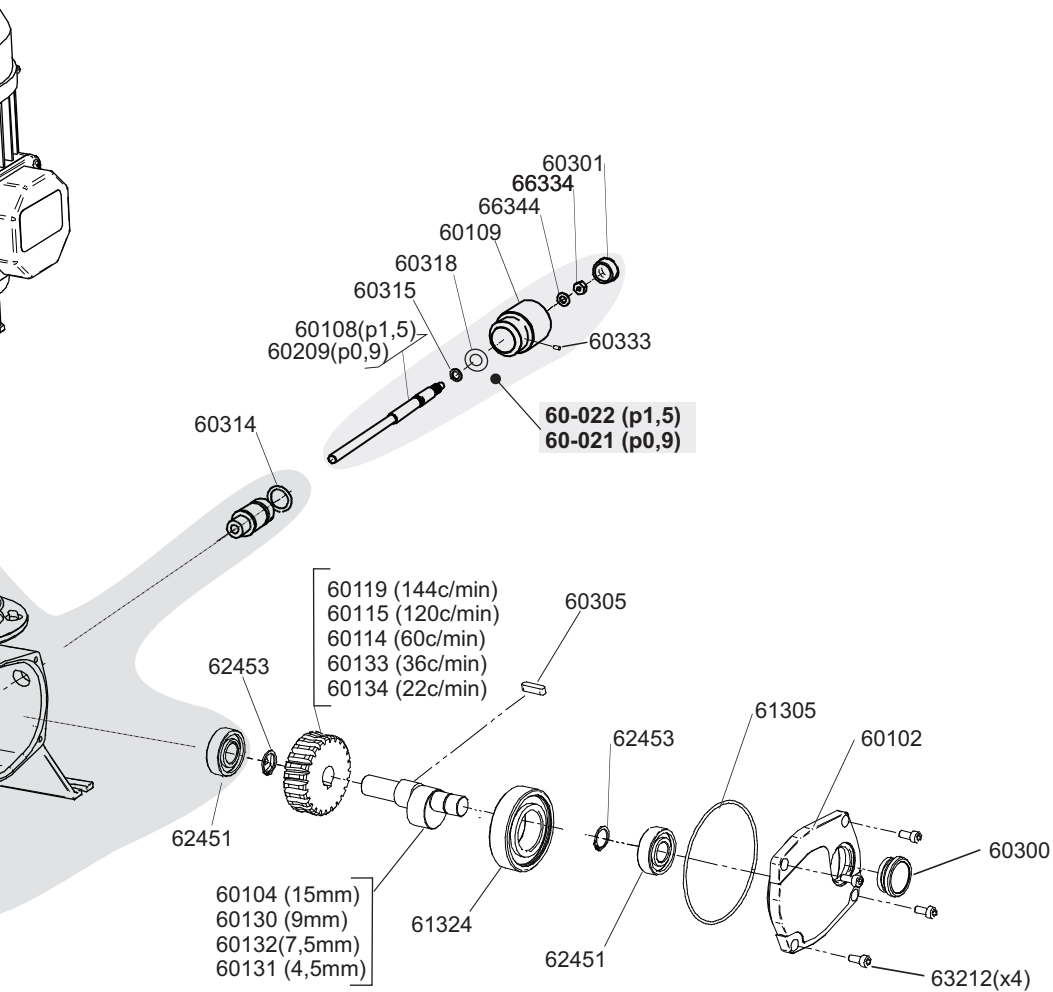
$$Q(l/h) = V \text{ (liters)} / t \text{ (seconds)} \times 3600$$



7 MAINTENANCE

Piston series





Part List DOSTEC-40: Piston

Code	Description	Units
28014	Electric motor 370w (1/2cv) 3ph T71 B14	1
28017	Electric motor 370w (1/2cv) 1ph 60hz 110v T71 B14 IT-526	1
28021	Electric motor 370w (1/2cv) 1ph 50hz T71 B14 high torque	1
28022	Electric motor 130w 12v dc B14	1
28023	Electric motor 130w 24v dc B14	1
28024	Electric motor 300w 12v dc B14	1
28025	Electric motor 300w 24v dc B14	1
60102	Dostec block lid	1
60104	Eccentric shaft 15	1
60108	Regulation rod 15 Dostec	1
60109	Regulator knob Dostec	1
60111	Pinion bumper Dostec	1
60114	Ring gear 1 strokes/s D40	1
60115	Ring gear 2 strokes/s D40	1
60116	Pinion 2 strokes/s D40-MF	1
60117	Pinion 2 strokes/s D40-MF	1
60118	Pinion 2.4 strokes/s D40-MF	1
60119	Ring gear 2,4 strokes/s D40	1
60-125	Piston 200 l - s M20 lock	1
60-126	Piston 300 l - s M20 lock	1
60-127	Piston 500 l M20	1
60130	Eccentric shaft 9	1
60131	Eccentric shaft 4,5	1
60132	Eccentric shaft 7,5	1
60133	Ring gear 0.6 stroke/s D40	1
60134	Ring gear 0.3 stroke/s D40	1
60137	Pinion 0.6 stroke/s D40	1
60138	Pinion 0.3 stroke/s D40	1
60140	Rod protective D40	1
60209	Diaphragm regulation rod Dostec	1
60300	Oil peep hole	1
60301	Regulator knob plug	1
60302	Screw M4x8 Din 933 A2	4
30304	Screw M4x6 DIN9112 A2	1
60305	Wedging piece Din 6885-a 5x5x20	1
60312	O-ring 68x1,5 NBR	1
60313	O-ring 44x2 NBR	1
60314	O-ring 17x3,5 NBR	1
60315	O-ring 6,5x2 NBR	1
60318	Washer D8 Din 125 A2	1
60319	Bearing 608-zz (8x22x7)	1
60320	Elastic washer din137-b(21x10.5x1)	5
60333	Screw M4x8 DIN 913 A-2	1
61305	O-ring 88x2,5 NBR	1
61324	Bearing 6206zz (30x62x16) EF	1
62119	Cylinder spacer D40/MF	1
62120.1-P/F/I	Cylinder 50 l/h - s 3/4'	1
62121.-P/F/I	Cylinder 100 l/h - s 3/4'	1
62122.1-P/F/I	Cylinder 200 l/h - s 3/4'	1
62123.1--P/F/I	Cylinder 300 l/h - s 3/4'	1
62129	Bellow FPM	1
62-132	Piston 50 l/h - s M20 lock	1
62-133	Piston 100 l/h - s M20 lock	1
62-143	Piston 50 l/h - s M20 lock ceramic	1
62-144	Piston 100 l/h - s M20 lock ceramic	1

62-145	Piston 200 l/h - s M20 lock ceramic	1
62-146	Piston 300 l/h - s M20 lockceramic	1
62300	O-ring 19x3 FPM	2
62301	O-ring 19x3 NBR	2
62352	Screw M6x12 Din 933 A2	4
62451	Bearing 6202 zz	2
62453	Retaining ring 15 Din 471	2
63124	filler plug	1
63125	3/8" drain plug	1
63212	Screw M5x12 Din 912 A2	5
63213	Washer 18x5x2,5 F5	1
63332	Screw M8x90 Din 912 A2	4
63350	Cylinder 500 l/h	1
63351	500l electro flange	1
63420	Seal 25x34x6 FPM 50 l/h	2
63421	Seal 35x45x6 FPM 100 l/h	2
63422	Seal 50x60x6 FPM 200 l/h	2
63423	Seal 60x68x6 FPM 300 l/h	2
63424	Seal 78x87x6 FPM 500 l/h	2
64310	O-ring 55,5x3,5 NBR	1
66334	Nut M6 Din 934 A2	1
66344	Washer D6 Din 125 A2	1

ASSEMBLIES

60-013	Block D40 p1,5mm assembly	1
60-014	Rod slider D40-P assembly	1
60-021	Regulator p 0,9 mm D40 assembly	1
60-022	Regulator p 1,5 mm D40 assembly	1
60-023	Rod slider D40-P 500 l/h assembly	1
60-032	Block D40 p0,9mm assembly	1

VALVES

60-808.1-P/F/I	Suction check valve hose 6X12 3/4	1
60-809.1-P/F/I	Discharge check valve hose 6X12 3/4	1
62-806-P/F	Suction check valve 3/4	1
62-807-P/F	Discharge check valve 3/4	1
63-803-I	Suction check valve 3/4 s.s.	1
63-804-I	Discharge check valve 3/4 s.s.	1
60-814.1-P/F/I	Priming valve 3/4 max. 50 l/h	1
60-840-P/F/I	Priming valve 3/4 max. 500 l/h	1

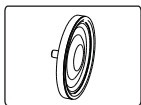
MAINTENANCE KIT

60-071-P	Maintenance kit Dostec-40 P24 PP
60-072-P	Maintenance kit Dostec-40 P34 PP
60-073-P	Maintenance kit Dostec-40 P49 PP
60-074-P	Maintenance kit Dostec-40 P61 PP
60-075-P	Maintenance kit Dostec-40 P77 PP

Materials code: -P= Polypropylene
-F= PVDF
-I= SS 316

DOSTEC-40

Diaphragm Series



- (A) 28014
- (B) 28021
- (C) 28017
- (D) 28022
- (F) 28023
- (E) 28024
- (G) 28025

62352(x4)

- 60118 (144c/min)
- 60116 (120c/min)
- 60117 (60c/min)
- 60137 (36c/min)
- 60138 (22c/min)

63213

60111

60319

60-013 (p1,5)
60-032 (p0,9)

60302(x4)

60313

60-015

62129

64310

- 62-859-P/F/I
- 62-857-P/F
- 63-804-I

62300

67104.2-P/F (D69)
67104-I (D69)

67100 (D69)

67105.2-P/F (D69)
67105.1-I (D69)

- 62-858-P/F/I
- 62-856-P-F
- 63-803-I

67302

67117 (D95)
67121 (D115)

60202(D95)
60201 (D115)

67301

67116 (D95)
67123 (D115)

67114 (D95)
67118 (D115)

67115 (D95)
67119 (D115)

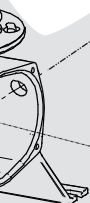
67300

631

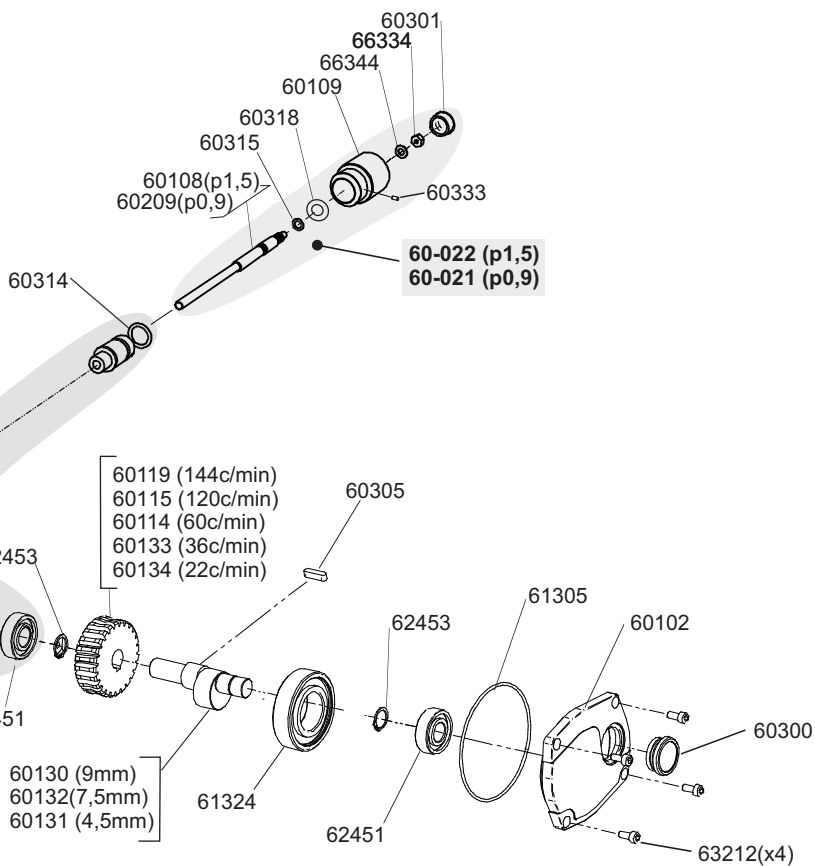


63212

60320(x5)
63124



25



LIST OF PARTS DOSTEC-40: Diaphragm

Code	Description	Units
28014	Electric motor 370w (1/2cv) 3ph T71 B14	1
28017	Electric motor 370w (1/2cv) 1ph 60hz 110v T71 B14 IT-526	1
28021	Electric motor 370w (1/2cv) 1ph 50hz T71 B14 high torque	1
28022	Electric motor 130w 12v dc B14	1
28023	Electric motor 130w 24v dc B14	1
28024	Electric motor 300w 12v dc B14	1
28025	Electric motor 300w 24v dc B14	1
60102	Dostec block lid	1
60104	Eccentric shaft 15	1
60108	Regulation rod 15 Dostec	1
60109	Regulator knob Dostec	1
60111	Pinion bumper Dostec	1
60114	Ring gear 1 strokes/s D40	1
60115	Ring gear 2 strokes/s D40	1
60116	Pinion 2 strokes/s D40-MF	1
60117	Pinion 2 strokes/s D40-MF	1
60118	Pinion 2.4 strokes/s D40-MF	1
60119	Ring gear 2,4 strokes/s D40	1
60130	Eccentric shaft 9	1
60131	Eccentric shaft 4,5	1
60132	Eccentric shaft 7,5	1
60133	Ring gear 0.6 stroke/s D40	1
60134	Ring gear 0.3 stroke/s D40	1
60137	Pinion 0.6 stroke/s D40	1
60138	Pinion 0.3 stroke/s D40	1
60201	Washer spacer diaphragm D115 (black) D40	1
60202	Washer spacer diaphragm D95 (red) D40	1
60209	Diaphragm regulation rod Dostec	1
60300	Oil peep hole	1
60301	Regulator knob plug	1
60302	Screw M4x8 Din 933 A2	4
60305	Wedging piece Din 6885-a 5x5x20	1
60312	O-ring 68x1,5 NBR	1
60313	O-ring 44x2 NBR	1
60314	O-ring 17x3,5 NBR	1
60315	O-ring 6,5x2 NBR	1
60318	Washer D8 Din 125 A2	1
60319	Bearing 608-zz (8x22x7)	1
60320	Elastic washer din137-b(21x10.5x1)	5
60333	Screw M4x8 DIN 913 A-2	1
61305	O-ring 88x2,5 NBR	1
61324	Bearing 6206zz (30x62x16) EF	1
62119	Cylinder spacer D40/MF	1
62129	Bellow FPM	1
62300	O-ring 19x3 FPM	2
62352	Screw M6x12 Din 933 A2	4
62451	Bearing 6202 zz	2
62453	Retaining ring 15 Din 471	2
63124	filler plug	1
63125	3/8" drain plug	1
63212	Screw M5x12 Din 912 A2	5
63213	Washer 18x5x2,5 F5	1
64310	O-ring 55,5x3,5 NBR	1
66334	Nut M6 Din 934 A2	1
66344	Washer D6 Din 125 A2	1

67100	Diaphragm D69	1
67104-I	Diaphragm base D69 Inox	1
67104.2-P/F	Diaphragm base D69	1
67105.1-I	Diaphragm cylinder D69 3/4" Inox	1
67105.2-P/F	Diaphragm cylinder D69 3/4"	1
67114	Diaphragm D95	1
67115-P/F/I	Diaphragm cylinder D95	1
67116	Diaphragm base D95	1
67117	Diaphragm flange D95	1
67117-I	Diaphragm flange D95 s.s.	1
67118	Diaphragm D115	1
67119-P/F/I	Diaphragm cylinder D115	1
67121	Diaphragm flange 115	1
67121-I	Diaphragm flange D115 s.s.	1
67123	Diaphragm base 115	1
67300	Screw M8x40 Din 912 A2	4
67301	Screw M8x10 iso 7380 A2	4
67302	Screw M8x60 Din 912 A2	4

ASSEMBLIES

60-013	Block D40 p1.5mm assembly	1
60-015	Rod slider D40-D assembly	1
60-021	Regulator p 0,9 mm D40 assembly	1
60-022	Regulator p 1,5 mm D40 assembly	1
60-032	Block D40 p0,9mm assembly	1

VALVES

60-808.1-F/I	Suction check valve hose 6X12 3/4	
60-809.1-F/I	Discharge check valve hose 6X12 3/4	
60-858-P	Suction check valve 6x12 3/4 PP Borosilicate	
60-859-P	Discharge check valve 6X12 3/4 PP Borosilicate	
62-806-F	Suction check valve 3/4 PVDF	
62-807-F	Discharge check valve 3/4 PVDF	
62-856-P	Suction check valve 3/4 PP Borosilicate	
62-857-P	Discharge check valve 3/4 PP Borosilicate	
63-803-I	Suction check valve 3/4 s.s.	
63-804-I	Discharge check valve 3/4 s.s.	
60-814.1-P/F/I	Priming valve 3/4 max. 50 l/h	
60-840-P/F/I	Priming valve 3/4 max. 500 l/h	

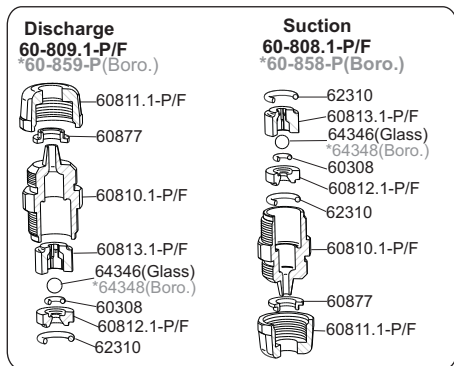
MAINTENANCE KIT

60-080-P	Maintenance kit Dostec-40 D69 6X12 PP	
60-081-P	Maintenance kit Dostec-40 D69 3/4 PP	
60-082-P	Maintenance kit Dostec-40 D95 PP	
60-083-P	Maintenance kit Dostec-40 D115 PP	

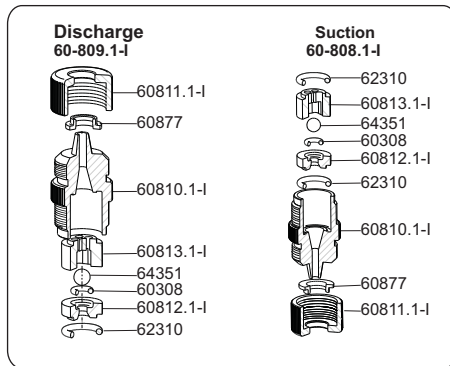
Materials code: -P= Polypropylene
 -F= PVDF
 -I= SS 316

VALVES 6X12 (60 l/h max.)

PP / PVDF

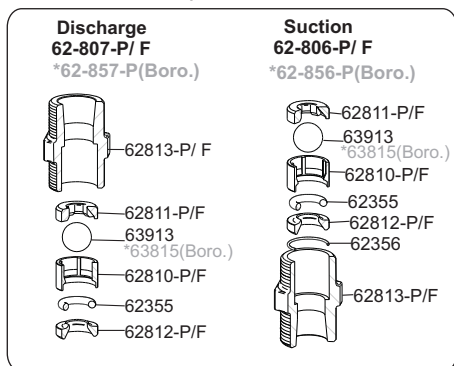


AISI 316

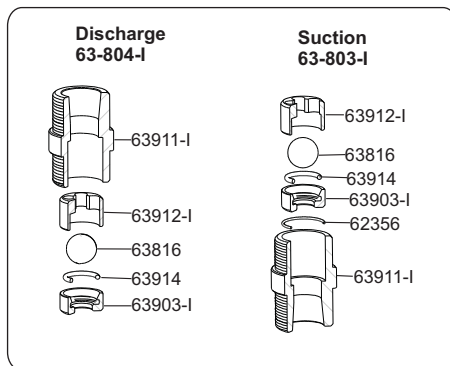


VALVES 3/4 (500 l/h máx.)

PP / PVDF

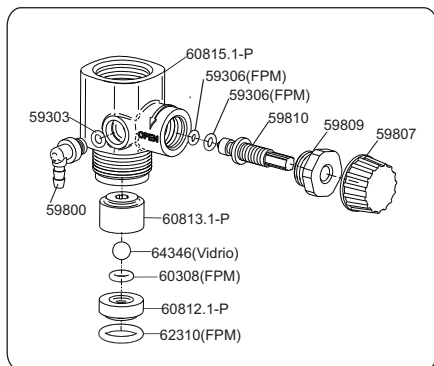


AISI 316

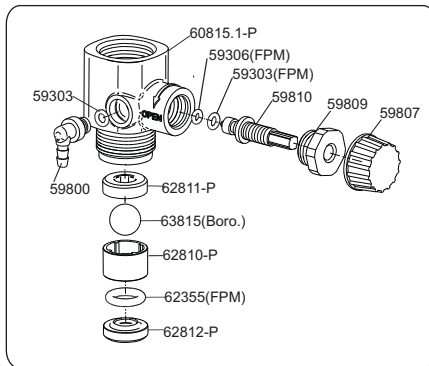


PRIMING VALVES

60-840-P (60l/h máx.)



60-814.1-P (500l/h max.)



MAINTENANCE



Before any maintenance operation we will check:

That the pump is stopped and disconnected from the electric supply.

There is no pressure neither inside the head nor in the impulsion pipe. It is advisable to empty the head before opening it.

The staff in charge of the maintenance will use the adequate protection means in order to manipulate the dosed liquid.

PERIÓDICAL MAINTENANCE:

Change oil after the first 500 hours. Next changes will be every 2000 hours (minimum once a year).

Check the piston every 3 months or 1000 hours.

Check the seals every 3 months or 1000 hours.

Check the diaphragm every 3 months or 1000 hours.

Check the bellows every 3 months or 1000 hours.

Check the suction filter once a month.

Check the valves every 3 months or 1000 hours.

It is advisable to clean periodically the injector, letting clean water flow through it (we can make it coincide with the emptying of the tank), to eliminate precipitated rests that can remain in the inner part of the cylinder or in suction / impulsion pipes.

If highly corrosive liquids are been used, it is advisable to double the frequency of checkings.

PROBLEM	CAUSE	SOLUTION
MOTOR DOES NOT RUN	THERE IS NO VOLTAGE MOTOR PROTECTION HAS BLOWN UP	- Check with a voltmeter incoming voltage - Check with ammeter that current is not superior than nominal one
MOTOR RUNS HOT	A PHASE IS FAILING (three-phase); WRONG INCOMING VOLTAGE SUPERIOR CONSUMPTION THAN NOMINAL ONE LOW WORK FREQUENCY (only with inverter)	- Check with voltmeter tension in motor terminals - Check that incoming tension coincides with motor one (-10% / +10%) - Check that injection pressure is not superior to the one specified in the module - Check with a voltmeter incoming tension - Increase working frequency with inverter
MOTOR RUNS BUT PUMP DOES NOT INJECT OR INJECTION IS INFERIOR THAN NOMINAL ONE	PUMP HAS NOT BEEN PRIMED SUCTION / IMPULSION VALVES ARE DIRTY OR DAMAGED SUCTION FILTER IS DIRTY AIR COMES INTO SUCTION PIPE CAVITATION IN SUCTION	- Prime the pump injecting at zero pressure - Clean or change valves - Clean filter - Check sealing in connection points - Increase pipe diameter - Reduce suction pipe length - Reduce speed through an inverter - Use a less viscous liquid
PUMP TRICKLES LIQUID THROUGH INFERIOR CYLINDER HOLE	DAMAGED SEALS DAMAGED PISTON	- Change seals - Change piston
PUMP TRICKLES OIL THROUGH INFERIOR CYLINDER HOLE	DAMAGED BELLOWS	- Change bellows
PUMP LEAKS OIL THROUGH REGULATOR	DAMAGED REGULATOR O'RINGS	- Change o'rings

EC CONFORMITY DECLARATION



I.T.C S.L..
Mar Adriàtic, 1
Polígono Torre del Rector
08130 Santa Perpètua de Mogoda

Declares that all models **DOSTEC** products, identified by a serial number and year of manufacture, strictly fulfill 2006/042/CE and low voltages directives D2006/95/CE, as long as installation, use and maintenance are carried out following the prevailing regulation and following the instructions contained in the handbook.

Antón Planas
Manager

WARRANTY



I.T.C. S.L. Warrants the product specified in this document for a period of 1 year from the purchase date. This warranty obligation is limited to the free replacement of the damaged parts due to any material or manufacture defect. This warranty does not include periodic maintenance and damage resulting from misuse.

The equipment must be sent to **I.T.C. S.L.** Service Center with prepaid transport charges, and will be sent back with transport charges for customer's account.

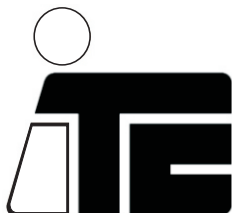
The warranty document with sales date and shop stamp, or an invoice copy must be sent with the equipment.

MODEL

Sales date and shop stamp

SERIAL #

Ed:27/02/14 An



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