Company certified by

Sistema de Gestión
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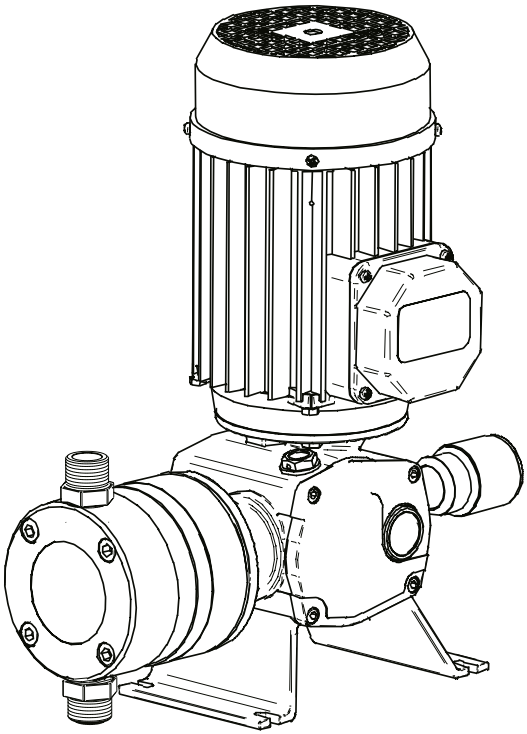
ITC
A VERDER COMPANY



DOSTEC 40

ENGLISH

CONTENTS

SAFETY INSTRUCTIONS

To avoid personal injury risks and damage to the environment, and to ensure proper equipment operation, personnel responsible for installing, commissioning and maintaining the equipment must follow the instructions in this manual, with special attention to the detailed recommendations and warnings. The specific instructions for the use of the chemicals to be dosed must also be followed

This appliance must not be used by people (including children) with reduced physical, sensory or mental abilities or who lack experience and knowledge, unless they have received supervision or instruction. Children should not play with the appliance unsupervised.

1 GENERAL DESCRIPTION

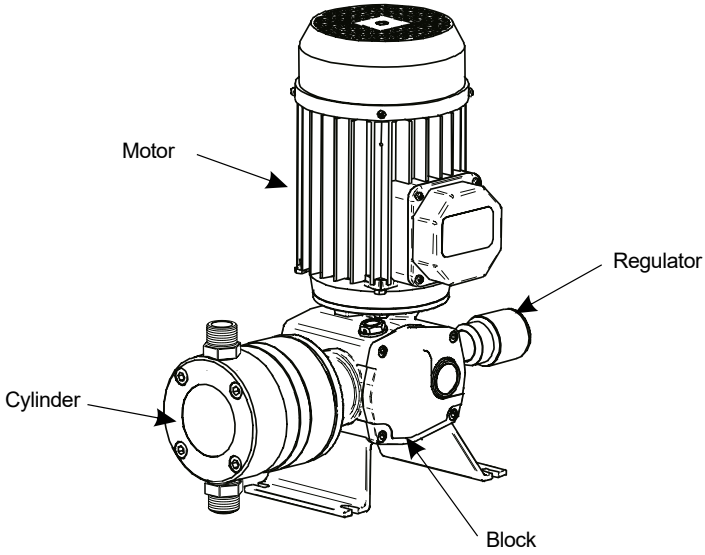
DOSTEC-40 dosing pumps are heavy duty, high precision, piston or diaphragm pumps for dosing liquid products.

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 diafragm series.

DOSTEC-40 dosing pumps are manufactured with materials that can resist most chemicals products. They are designed to dose acid, base, salts, organic compounds 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.

It is made up as follows:



Code formulation

MOTOR
A : 3Ph 50/60Hz 230/400V
B : 1Ph 50Hz 230V
C : 1Ph 60Hz 110V
D : 12V DC 130W
E : 12V DC 300W
F : 24V DC 130W
G : 24V DC 300W
I : 1Ph 60Hz 230V

HEAD
P : Piston
D : Diaphragm

FREQUENCY
1: 22 Strokes/min.
2: 36 Strokes/min.
3: 60 Strokes/min.
4: 120 Strokes/min.
5: 144 Strokes/min.

STROKE
1 : 4,5 mm
2 : 7,5 mm
3 : 9 mm
4 : 15 mm

60 - A P 4 4 - P61 P B M

INJECTION DIAMETER	
P24:	ø 24 mm Piston
P34:	ø 34 mm Piston
P49:	ø 49 mm Piston
P61:	ø 61 mm Piston
P77:	ø 77 mm Piston
D69:	ø 69 mm Diaphragm
D95:	ø 95 mm Diaphragm
D115:	ø 115 mm Diaphragm

MATERIAL Cylinder-Piston/Diaphragm	
P:	PP - PEUHMW / PTFE
C:	PP - Ceramic / PTFE
I:	AISI316 - Ceramic / PTFE
F:	PVDF - Ceramic / PTFE
T:	PTFE - Ceramic / PTFE
A:	PP - AISI316 /

RETENTION Body - Ball	
P:	PP - Soda
B:	PP - Boro
I:	AISI 316
F:	PVDF - Boro
T:	PTFE - Boro

CONNECTION	
M:	3/4”
L:	6x12 (6x8 PVDF)
X:	1”1/4

2 PACKAGING 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
- Quick installation guide
- Oil (250cm³)

2.1. WASTE DISPOSAL

This equipment is labeled with the crossed-out waste container symbol in accordance with the European Directive 2012/19/EU on Waste Electrical and Electronic Equipment. Do not dispose of the device with household waste. For proper disposal, use the available collection and recycling points and follow the applicable local regulations.

It is the owner's responsibility to manage the equipment as waste in accordance with the current regulations in the country of use at the end of its useful life.

3. TECHNICAL FEATURES

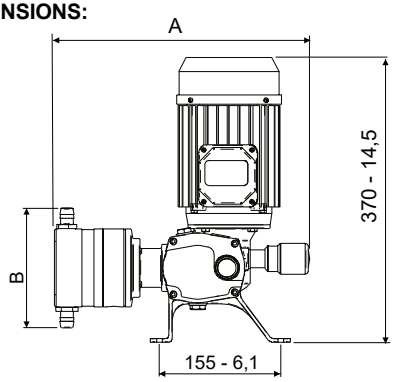
	CODE	FLOW 50Hz l/h	FLOW 50Hz GPH	FLOW 60Hz	FLOW 60Hz	PRESSURE bar	PRESSURE psi	*Suction m	*Suction ft
Piston	60-AP11-P24_ _L	2,5	0,6	3	0,8	20/15	217	9	30
	60-AP13-P24_ _L	5	1,3	6	1,6	20/15	217	9	30
	60-AP14-P24_ _L	9	2,4	10,5	2,7	20/15	217	9	30
	60-AP33-P24_ _L	15	4	18	4,7	20/15	217	9	30
	60-AP34-P24_ _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	5.3-8	1.4-2.1	6.4-9.5	1.7-2.5	16	232	9	30
	60-AD21-D69_ _L	9.1-13	2.4-3.4	10.9-15.5	2.9-4	16	232	9	30
	60-AD31-D69_ _L	15.2-22	4.0-5.8	18.2-26	4.8-7	16	232	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	45.7-55.2	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

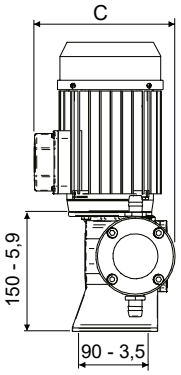
CODE	FLOW 50Hz l/h	FLOW 50Hz GPH	FLOW 60Hz		PRESSURE bar	PRESSURE psi	*Suction m	*Suction ft
*60-AD53-D95_ _M	173-209	45.7-55.2	-	-	8	116	8	26
60-AD42-D115_ _M	209-237	55.2-62.6	251-284	66-75	5	72	8	26
60-AD43-D115_ _M	251-285	66.3-75.3	301-342	79-90	5	72	7	23
*60-AD53-D115_ _M	301-342	79.5-90.3	-	-	5	72	7	23

20bars models only with ceramic piston
Models with _L include priming valve
Piston pumps 1Ph 60Hz 110V (60-CP..-.....) maximum pressure is reduced at 85%
*Can not work at 60Hz
** Suction lift when dosing head an suction pipe are full.Tested with water at 20ºC

POWER: 0,37 kW (0,5 Hp)
PROTECTION: IP-55
MATERIALS: Pistón: P.E.U.A.P.M. / Ceramic
Diaphragm: Elastomer base reinforced with fiber and P.T.F.E clothing
Retention: FPM
Cylinder: P.P. / PVDF / AISI316
Valve (body): P.P. / PVDF / AISI316
Valve (ball): Borosilicate / AISI316 / Ceramic
AMBIENT TEMPERATURE: 0...45 °C
MEDIA TEMPERATURE: PP: 0...50 °C
PVDF: −10...50 °C
SS: −10...60 °C
NOISE LEVEL: Minor than 70 dB (A)
WEIGH: 10 Kg (22 lb) / 15 Kg (33 lb)

DIMENSIONS:





Piston	ø	A	B	C	
	P77	320	175	205	mm
		12,6	6,9	8	in
	REST	320	154	195	mm
		12,6	6	7,6	in

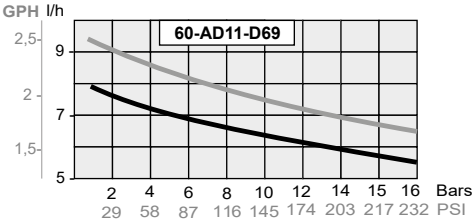
Diaphragm	ø	A	B	C	
	D69	280	154	195	mm
		11	6	7,6	in
	D95	285	184	195	mm
		11,2	7,2	7,6	in
	D115	285	204	207	mm
		11,2	8	8,1	in

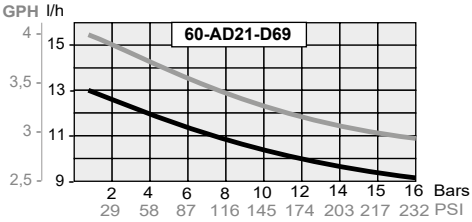
DIAPHRAGM PUMP

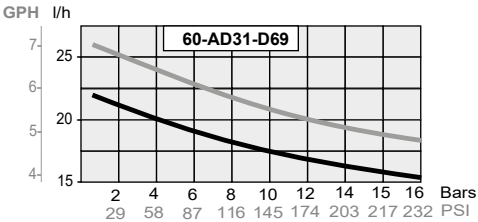
GRÁFICAS CAUDAL - PRESIÓN

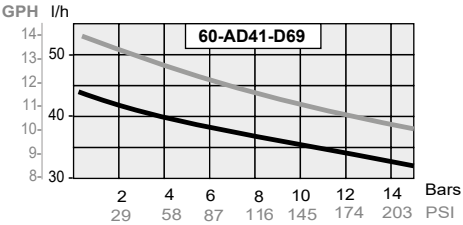
60Hz

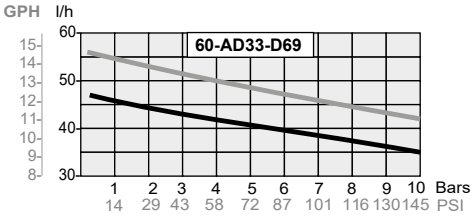
50Hz

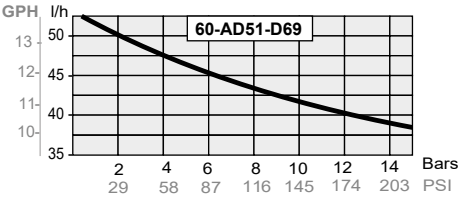


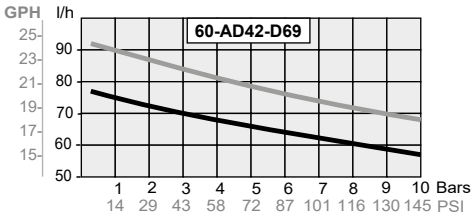


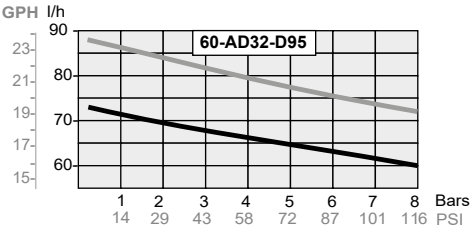


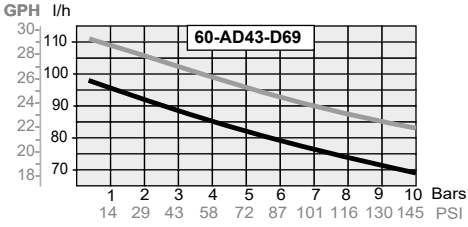


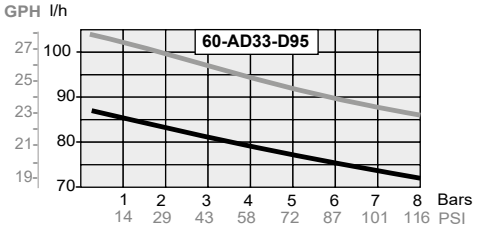


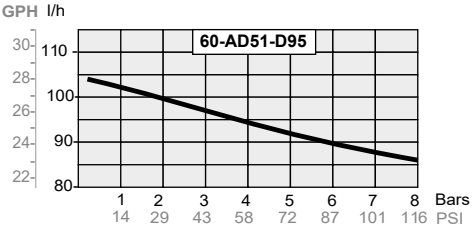


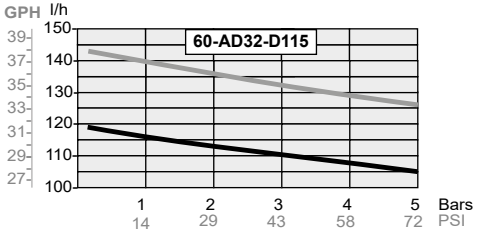


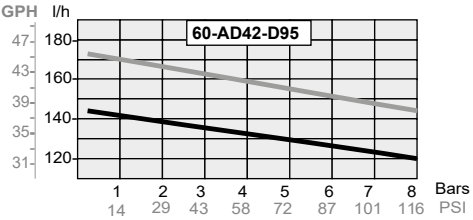


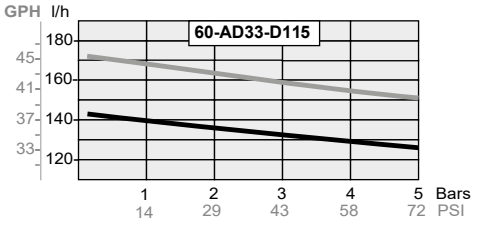


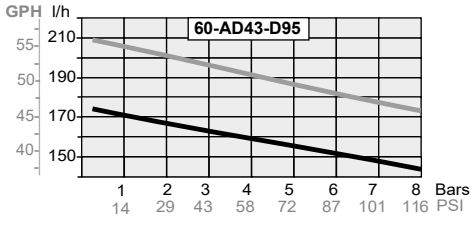

GPH l/h
60-AD33-D95
27 25 23 21 19
100 90 80 70
1 2 3 4 5 6 7 8 Bars
14 29 43 58 72 87 101 116 PSI

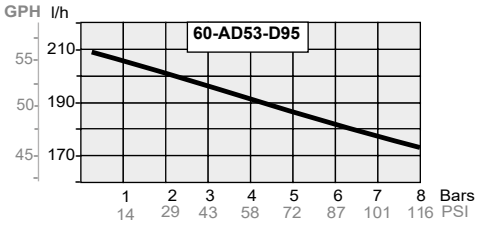

GPH l/h
60-AD51-D95
30 28 26 24 22
110 100 90 80
1 2 3 4 5 6 7 8 Bars
14 29 43 58 72 87 101 116 PSI


GPH l/h
60-AD32-D115
39 37 35 33 31 29 27
150 140 130 120 110 100
1 2 3 4 5 Bars
14 29 43 58 72 PSI


GPH l/h
60-AD42-D95
47 43 39 35 31
180 160 140 120
1 2 3 4 5 6 7 8 Bars
14 29 43 58 72 87 101 116 PSI


GPH l/h
60-AD33-D115
45 41 37 33
180 160 140 120
1 2 3 4 5 Bars
14 29 43 58 72 PSI


GPH l/h
60-AD43-D95
55 50 45 40
210 190 170 150
1 2 3 4 5 6 7 8 Bars
14 29 43 58 72 87 101 116 PSI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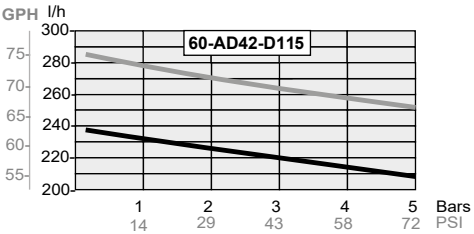
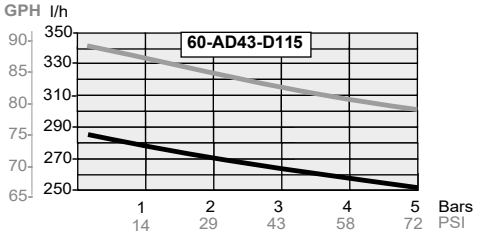
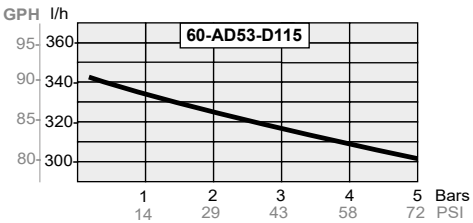
60-AD53-D95
55 50 45
210 190 170
1 2 3 4 5 6 7 8 Bars
14 29 43 58 72 87 101 116 PSI


GPH l/h
60-AD42-D115
75 70 65 60 55
300 280 260 240 220 200
1 2 3 4 5 Bars
14 29 43 58 72 PSI


GPH l/h
60-AD43-D115
90 85 80 75 70 65
350 330 310 290 270 250
1 2 3 4 5 Bars
14 29 43 58 72 PSI

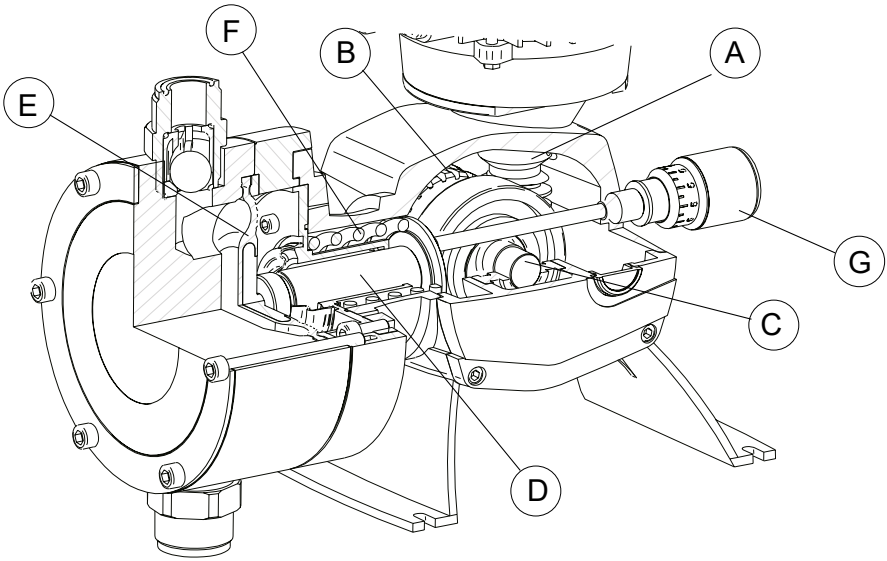

GPH l/h
60-AD53-D115
95 90 85 80
360 340 320 300
1 2 3 4 5 Bars
14 29 43 58 72 PSI

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%.



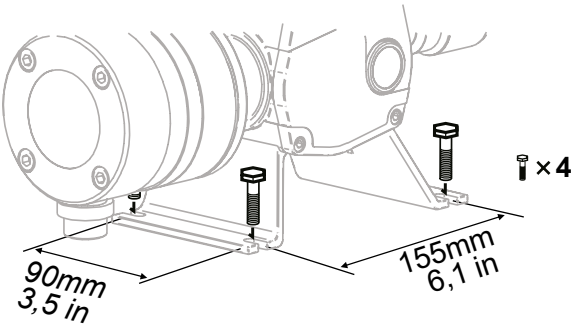
5 INSTALLATION

5.1 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.



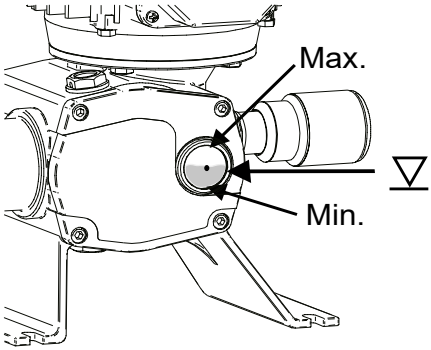
5.2. BLOCK

Fill the pump with the SAE oil 80W90 being supplied (or similar oil) up to the level shown on the sight glass (▽) , and put on the 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



5.3 ELECTRICAL CONNECTION

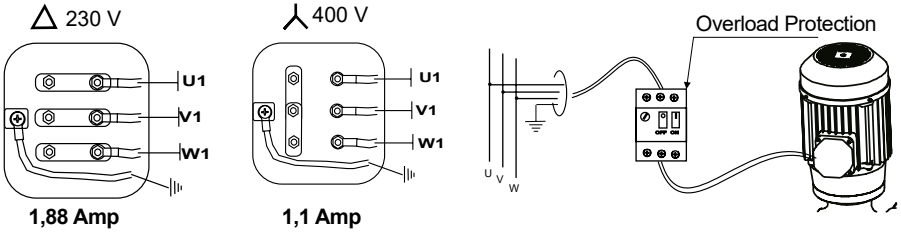
The electric protection of the motor must be installed and adjusted following its nominal instensity (overloaded switch disjuntor). (See wiring).

A dispositiv disconnection must be installed in case of emergency.

The equipment must be protected to avoid untimely sudden starts.

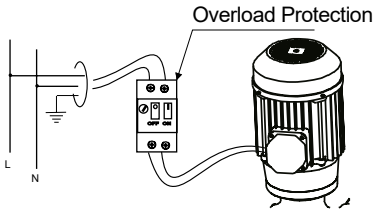
If the mains cable is damaged, it must be replaced by the manufacturer, its after-sales service or similarly qualified personnel in order to avoid a hazard.

THREE-PHASE CONNECTION (50/60 Hz)

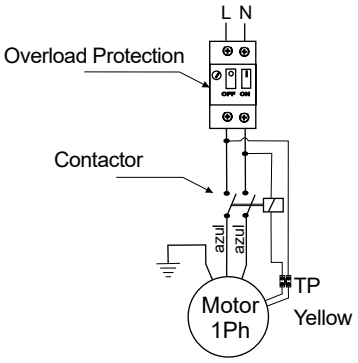


SINGLE PHASE CONNECTION

Install the correct motor protection (Overload protection).
Motor 230V 50Hz **2.9 Amp**.
Motor 110V 60Hz **8.1 Amp**.
Motor 230V 60Hz **3.0 Amp**.



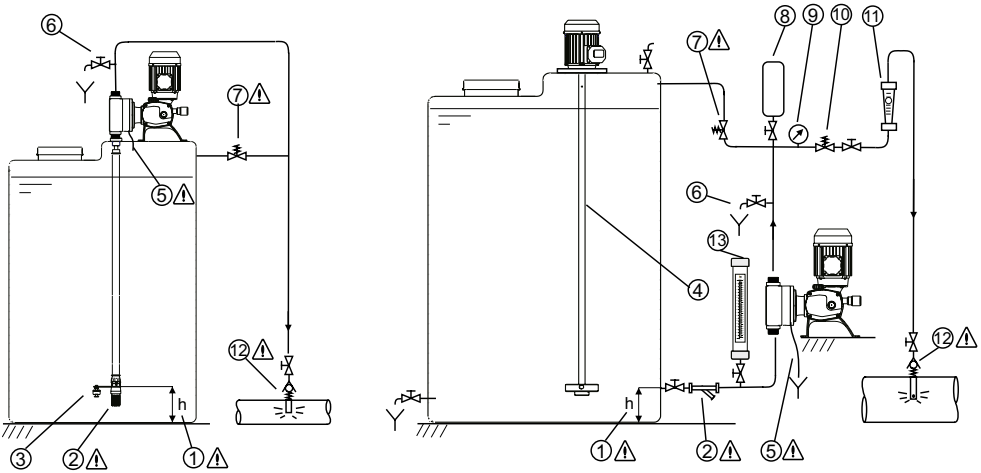
Wiring with Thermal Protection



***Only for equipment with motor with this feature.**

5.4 HYDRAULIC INSTALLATION

5.4.1 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

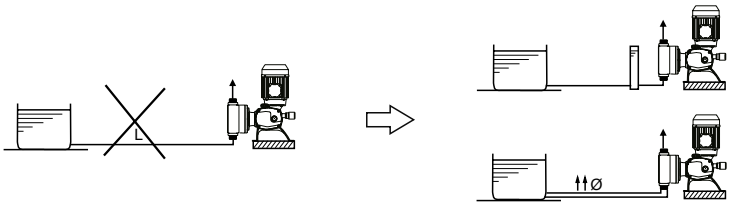
⚠ 12. Injection check valve

13. Calibration cylinder

5.4.2 Recomendations for correct installation

SUCTION PIPE

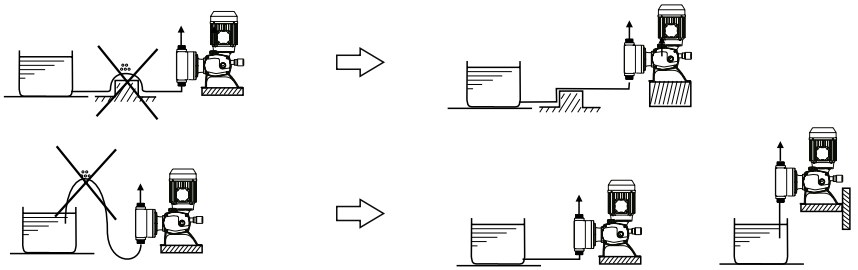
⚠ Long suction pipe: L>2m (6.5ft)



DIMENSIONADO TUBERÍA

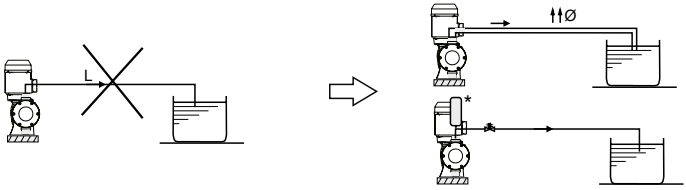
Øint	L ≤ 2 m	L ≤ 5 m
6	50	25
15	300	100
20		200
25		300
		Q max (l/h)

⚠ Air in sutcion pipe



DISCHARGE PIPE

⚠ Long discharge pipe: L>5m (16 ft)

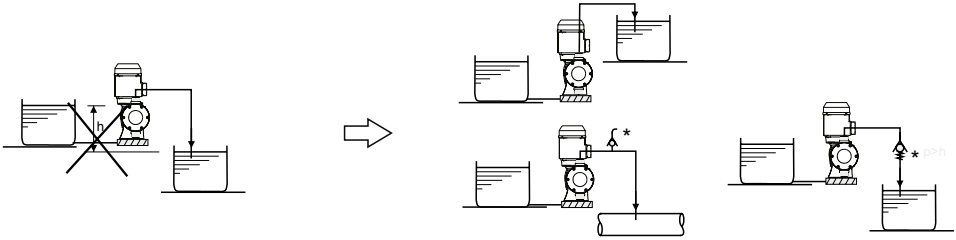


* Pulsation dampener

DIMENSIONADO TUBERÍA

Øint	L ≤ 2 m	L ≤ 5 m
6	80	10
15	300	70
20		100
25		200
30		300
		Q max (l/h)

⚠ Siphon



* Anti siphon valve

* Spring check valve

6 START UP AND REGULATION

⚠ FIXING: 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.

⚠ HYDRAULIC CIRCUIT CHECK: 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.

⚠ PUMP CHECK: Make a visual/auditory check of the correct operation of the pumpof the pump.

⚠ PRIMING: To facilitate pump priming, especially with low flows when there is no priming valve, it is advisable to minimize the pressure in the ejection line. Another option is to fill the head cylinder and suction pipe with liquid.

⚠ OVERPRESSURE PROTECTION: Adjust the safety, overpressure or pressure relief valve to the desired pressure to protect the installation, while never exceeding the nominal pressure of the pump.

⚠ ELECTRICAL PROTECTION: Adjust the electrical protection device to the rated current of the motor.

MAINTENANCE

Through the micrometic 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

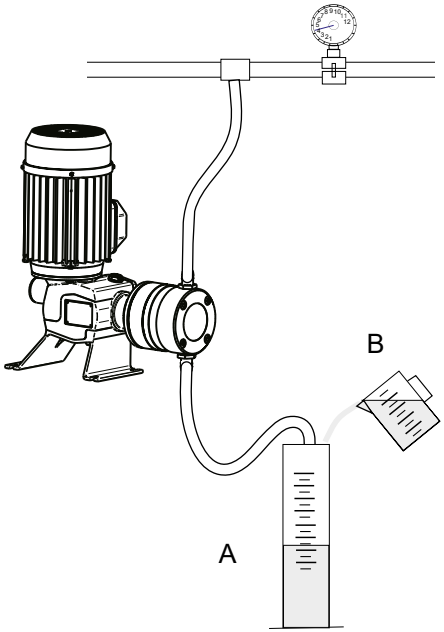
second receptacle (B).

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:

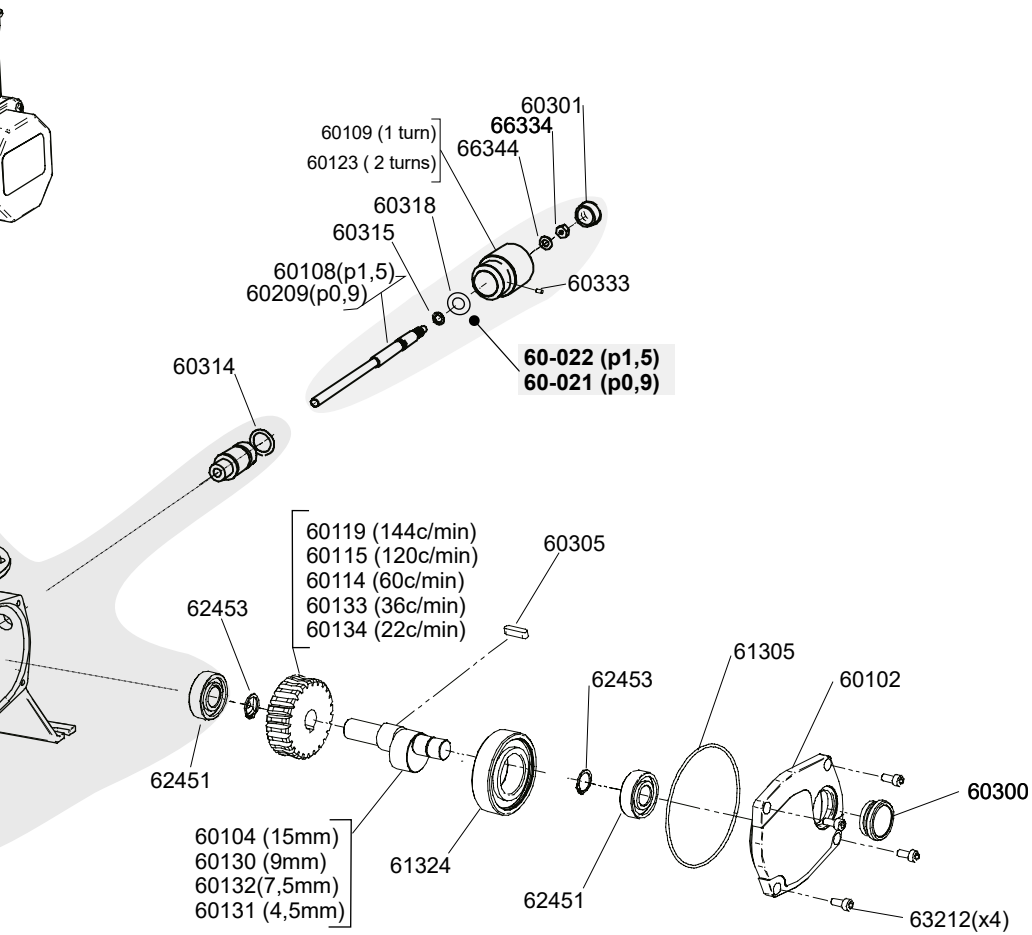
Q(l/h) = V (liters) / t (seconds) x 3600



7 MAINTENANCE

SPARE PARTS

Piston


60301
66334
66344
60109 (1 turn)
60123 (2 turns)
60318
60315
60108(p1,5)
60209(p0,9)
60333
60-022 (p1,5)
60-021 (p0,9)
60314
60119 (144c/min)
60115 (120c/min)
60114 (60c/min)
60133 (36c/min)
60134 (22c/min)
60305
62453
61305
62453
60102
60300
62451
60104 (15mm)
60130 (9mm)
60132(7,5mm)
60131 (4,5mm)
61324
62451
63212(x4)

LIST OF PARTS DOSTEC40 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 40 block lid	1
60104	Eccentric shaft 15	1
60108	Regulation rod 15 Dostec	1
60109	Regulator knob Dostec 40 1 turn	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 1 strokes/s D40-MF	1
60118	Pinion 2,4 strokes/s D40-MF	1
60119	Ring gear 2,4 strokes/s D40	1
60123	Regulator knob Dostec 40 2 turns	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 lock	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
60304	Screw M4x8 Din 912 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
62121.1-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 lock ceramic	1
62300	O-ring 19x3 FPM	2
62352	Screw M6x12 Din 933 A2	4
62451	62451 Bearing 6202 zz 2	2
62453	Retaining ring 15 Din 471	2
63124	Filler plug	1
63125	3/8” drain plug	1
63212	Screw M5x12 Din 912 A2	1
63213	Washer 18x5x2,5 F5	1
63332	Screw M8x90 Din 912 A2	1
63350	Cylinder 500 l/h	1
63351	500l electro flange	1
63420	Seal 25x34x6 FPM 50 l/h	1
63421	Seal 35x45x6 FPM 100 l/h	1
63422	Seal 50x60x6 FPM 200 l/h	1
63423	Seal 60x68x6 FPM 300 l/h	1
63424	Seal 78x87x6 FPM 500 l/h	1
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	

VÁLVULAS

55-801-P	Suction check valve 6x12 3/4 PP Borosilicate	1
55-802-P	Discharge check valve 6X12 3/4 PP Borosilicate	1
62-856-P	Suction check valve 3/4 PP Borosilicate	1
62-857-P	Discharge check valve 3/4 PP Borosilicate	1
63-803-I	Suction check valve 3/4 s.s.	1
63-804-I	Discharge check valve 3/4 s.s.	1
60-840-P/F/I	Priming valve 3/4 max. 50 l/h	1
60-814.1-P/F/I	Priming valve 3/4 max. 500 l/h	1

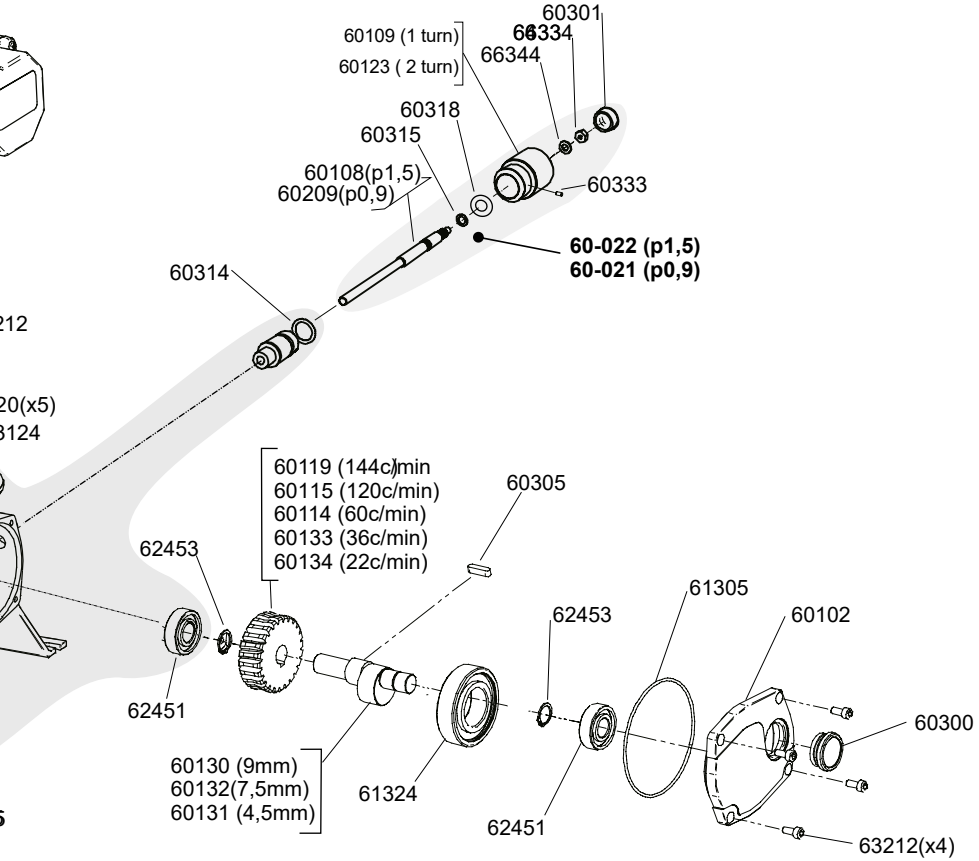
MAINTENANCE KIT (Valves+seals+springs+o-rings)

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

Diaphragm

(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
60312
60-013 (p1,5)
60-032 (p0,9)
60302(x4)
60313
60-015
67104.2-P/F (D69)
67104-I (D69)
55-801-P (3/4 4-6-10)
62-857-P (3/4)
62129
64310
62300 (3/4)
67100 (D69)
67105.2-P/F (D69)
67105.1-I (D69)
62300 (3/4)
55-802-P (3/4 4-6-10)
62-856-P (3/4)
67302
67117 (D95)
67121 (D115)
60202(D95)
60201 (D115)
67301
67116 (D95)
67123 (D115)
67114 (D95)
67118 (D115)
67300
67115-P/F/I (D95)
67119-P/F/I (D115)


60301
60109 (1 turn)
60123 (2 turn)
66334
66344
60318
60315
60108(p1,5)
60209(p0,9)
60333
60-022 (p1,5)
60-021 (p0,9)
60314
212
20(x5)
3124
60119 (144c/min
60115 (120c/min)
60114 (60c/min)
60133 (36c/min)
60134 (22c/min)
60305
62453
61305
62453
60102
62451
60300
60130 (9mm)
60132(7,5mm)
60131 (4,5mm)
61324
62451
63212(x4)

LIST OF PARTS DOSTEC40 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 1 strokes/s D40-MF	1
60118	Pinion 2,4 strokes/s D40-MF	1
60119	Ring gear 2,4 strokes/s D40	1
60123	Regulator knob Dostec 40 2 turns	
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” S.S.	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

VÁLVULAS		1
55-801-P	Suction check valve 6x12 3/4 PP Borosilicate	1
55-802-P	Discharge check valve 6X12 3/4 PP Borosilicate	1
62-856-P	Suction check valve 3/4 PP Borosilicate	1
62-857-P	Discharge check valve 3/4 PP Borosilicate	1
63-803-I	Suction check valve 3/4 S.S.	1
63-804-I	Discharge check valve 3/4 S.S.	1
60-840-P/F/I	Priming valve 3/4 max. 60 l/h	1
60-814.1-P/F/I	Priming valve 3/4 max. 500 l/h	1

MAINTENANCE KIT (Valves+seals+springs+o-rings)

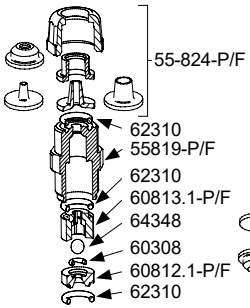
60-080-P	Maintenance kit Dostec-40 D69 6X12 PP
60-081-P	Maintenance kit Dostec-40 D69 3/4 PP
60-082-P	Maintenance kit Dostec-40 D95 PP
60-083-P	Maintenance kit Dostec-40 D115 PP

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

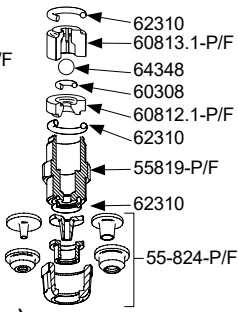
VALVES L3/4" 4-6-10 (60 l/h máx.)

PP / PVDF

Discharge
55-801-P
55-801-F

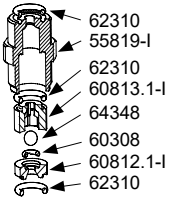


Suction
55-802-P
55-802-F

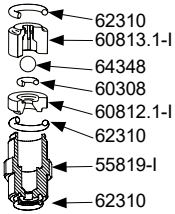


S.S. 316

Discharge
55-801-I



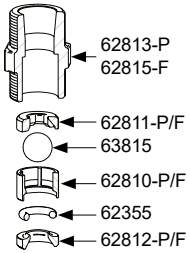
Suction
55-802-I



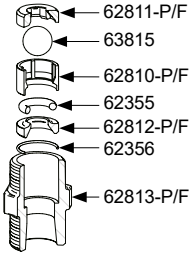
VALVES 3/4 (500 l/h máx.)

60-840-P (60l/h máx.)

Discharge
62-857-P
62-861-F

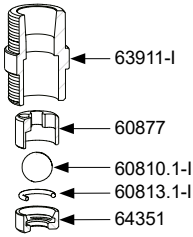


Suction
62-856-P
62-860-F

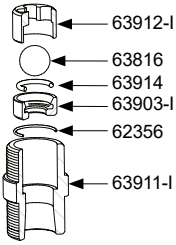


60-814.1-P (500l/h max.)

Discharge
60-859-P
60-809.1-F

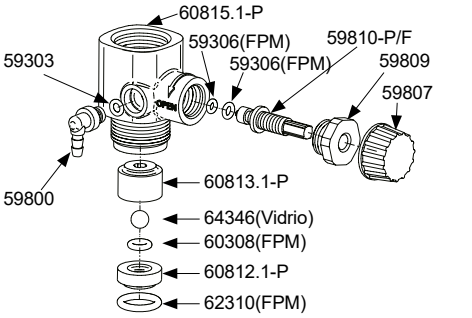


Suction
60-858-P
60-808.1-F

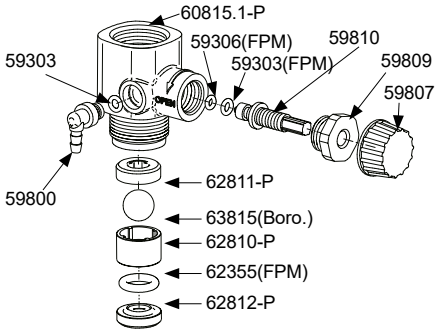


PRIMING VALVES

PP / PVDF



S.S. 316



Before any maintenance operation we will check:

The pump is stopped and disconnected from the power supply.

There is no pressure inside the head or in the discharge pipe. It is recommended to empty the head before opening it.

Maintenance personnel should use the appropriate means of protection for handling the liquid being dosed.

PERIODICAL MAINTENANCE:

Change the 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 condition of the suction filter once a month.

Check the condition of the valves every 3 months or 1000 hours

We recommend periodically circulating clean water through the dosing pump (coinciding for example with the emptying of the tank), in order to remove andy precipitated remains from inside the cylinder or in the suction and discharge pipes.

In the event of using highly corrosive liquids, it is recommended to double the frequency of the checks.

PROBLEMAS: CAUSA Y SOLUCIÓN

PROBLEM	CAUSE	SOLUTION
Motor does not run	No voltage	Check the input voltage with a voltmeter
	The thermomagnetic circuit breaker has tripped	Check with ammeter that current is not superior than nominal one
MOTOR RUNS HOT	A PHASE IS FAILING (three-phase); WRONG INCOMING VOLTAGE	Check with voltmeter tension in motor terminals
		Check that incoming tension coincides with motor one (-10% / +10%)
	SUPERIOR CONSUMPTION THAN NOMINAL ONE	Check that injection pressure is not superior to the one specified in the module
		Check with a voltmeter incoming tension
	LOW WORK FREQUENCY (only with inverter)	Increase working frequency with inverter
MOTOR RUNS BUT PUMP DOES NOT INJECT OR INJECTION IS INFERIOR THAN NOMINAL ONE	PUMP HAS NOT BEEN PRIMED	Prime the pump injecting at zero pressure
	SUCTION / IMPULSION VALVES ARE DIRTY OR DAMAGED	Clean or change valves
	SUCTION FILTER IS DIRTY	Clean filter
	AIR COMES INTO SUCTION PIPE	Check sealing in connection points
	CAVITATION IN SUCTION	Increase pipe diameter
		Reduce sucion pipe length
		Reduce speed through an inverter
		Use a less viscous liquid
PUMP TRICKLES LIQUID THROUGH INFERIOR CYLINDER HOLE	DAMAGED SEALS	Change seals
	DAMAGED PISTON	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

CE DECLARATION OF CONFORMITY

CE

I.T.C S.L..
Vallès, 26
Polígono Industrial Can Bernades-Subirà
08130 Santa Perpètua de Mogoda

Declares that all models of ***DOSTEC 40*** products identified with serial number and year of manufacture comply with Machinery Directive 2006/42/EC and Low Voltage Directive D2014/35/ EU, provided that the installation, use and maintenance are carried out in accordance with current regulations and following the instructions in the instruction manual.

Xavier Corbella
Gerente

ITC A VERDER COMPANY

WARRANTY

I.T.C. S.L. guarantees the product specified in this document, for a period of 1 year from the date of purchase, against all manufacturing or material defects, provided that installation, use and maintenance of the equipment are correct.

The equipment must be sent, free of charge, to our workshop or I.T.C. S.L.-accredited technical service and will be returned cash on delivery.

The equipment must be accompanied by the warranty document, with the purchase date and stamp of the establishment where purchased, or a photocopy of the purchase invoice.

MODEL _____

SERIAL No. _____

Date of purchase and stamp of the establishment where purchased

DATE: _____

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ITC

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