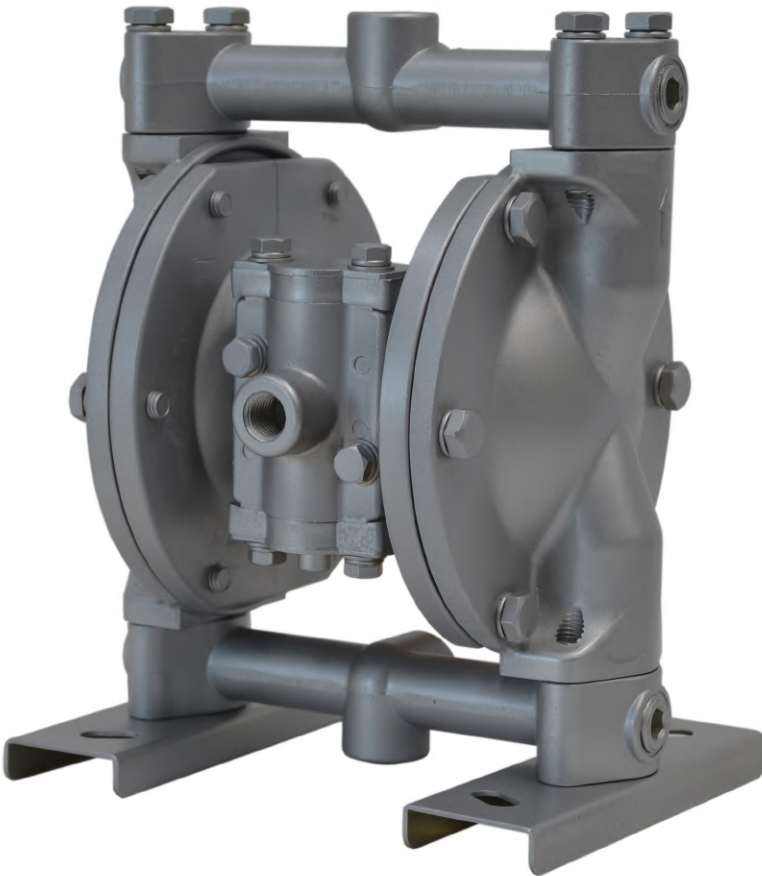


**LOW PRESSURE UNIT  
DIAPHRAGM PUMP  
DP-100 BS**



**DECLARACION DE CONFORMIDAD “CE”  
“EC” DECLARATION OF CONFORMITY**

**MODELO / MODEL DP - 100**

Este producto cumple con la siguiente directiva de la Comunidad Europea.

This Product complies with the following European Community Directive.

Directiva 2014/34/EU Atex sobre máquinas. (Ex II 2G c T6 X)

Machinery Directive 2014/34/EU Atex Directive. (Ex II 2G c T6 X)

APROBADO POR /

APPROVED BY

AITOR ORTIZ

FECHA / DATE

MBP, S.L. figura inscrita en el Registro Industrial del País Vasco con el N° 01/8030 y cumple los requisitos para el desarrollo de su actividad comercial.

MBP, S.L. is registered in the Industrial Register of the Basque Country with the N° 01/8030.

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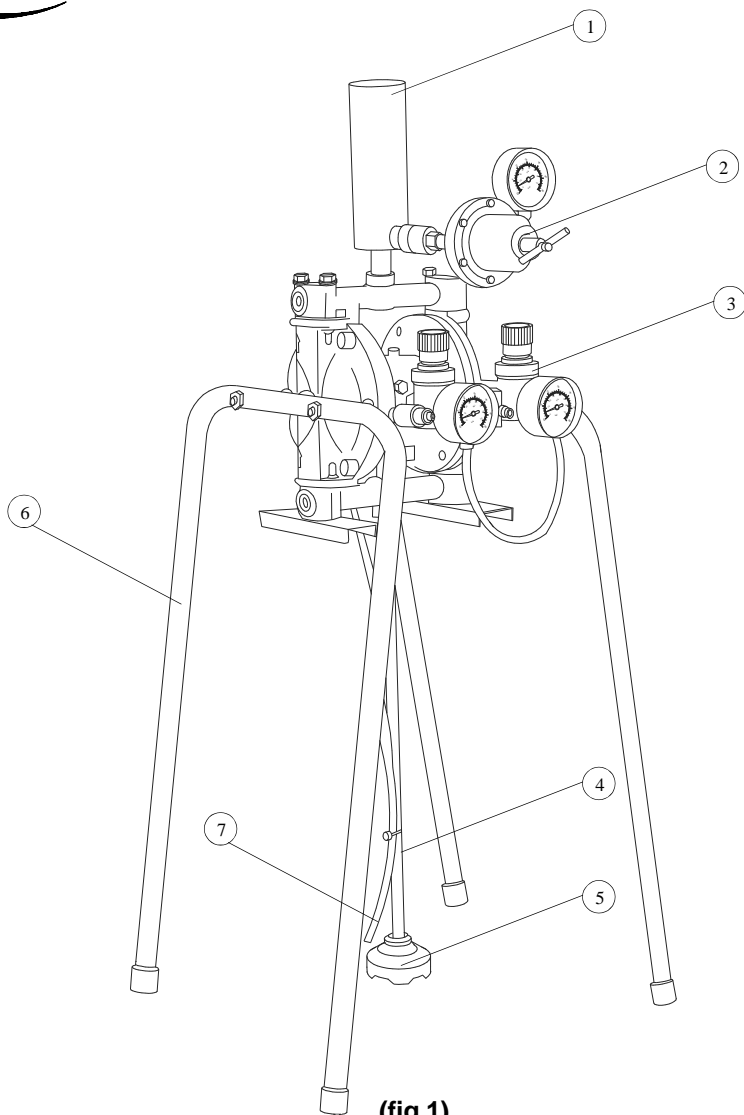
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## TECHNICAL DATA

PUMP RATIO	1:1
DELIVERY PER CYCLE	52cc.
MAX. CYCLE PER MIN.	300 cycles/min.
MAX. FLUID PRESSURE	7 bar
AIR INLET	1/4"
PRODUCT INLET	3/8"
PRODUCT OUTLET	1/4"
PRODUCT OUTLET (REGULATOR)	3/8"
AIR PRESSURE RANGE	2-7 bar
DOUBLE ACTING PUMP	



- (fig.1)**
- 1.- SURGE TANK**
  - 2.- PRESSURE REGULATOR**
  - 3.- AIR REGULATORS**
  - 4.- SUCTION PIPE**
  - 5.- SUCTION FILTER**
  - 6.- STAND**
  - 7.- DRAIN**



The DP-100 is the ideal pump for all kind of air-spray-guns.

- The operator does not need frequent fillings of the paint container.
- Easy to be used, strong and reliable, it can apply all kind of paints, from the fluidest to the most viscous, always obtaining the best result.
- The possibility of adjusting directly the fluid pressure increases the regulation width of the spray-guns.
- Paint changes are extremely simple, quick and with no waste of product.
- It substantially improves the handiness of the spray gun.

## **INSTALLATION AND FIRST WASHING**

- Locate the pump in an easily accessible position.
- Connect the atomization -air pipe and the paint delivery pipe to their respective outlets. Be sure not to invert them on the spray gun.
- Connect the special engine air connection to the compressed air pipeline, by means of a not too long pipe having an adequate diameter (at least 8). Make sure not to use pipe fittings with an insufficient diameter which could limit the air flow rate.
- Lift the pump and plunge the suction pipe into a container filled with clear solvent. Open the recirculation valve (drain).
- During the washing operations it is advisable to keep the atomization air closed.
- Adjust the air regulator pressure to 2 bar. The pump sucks the solvent and pours it back into the container through the recirculation system, thus cleaning itself.
- Adjust the paint pressure to 1 bar. Keeping the gun over the solvent container, press the trigger and let it reflow for a few seconds. Check the pipe fittings sealing and tighten them if necessary.
- Close the air by means of the engine air regulator.
- This is the position during idle periods. It is imperative to leave the pump full of solvent when it remains unused.

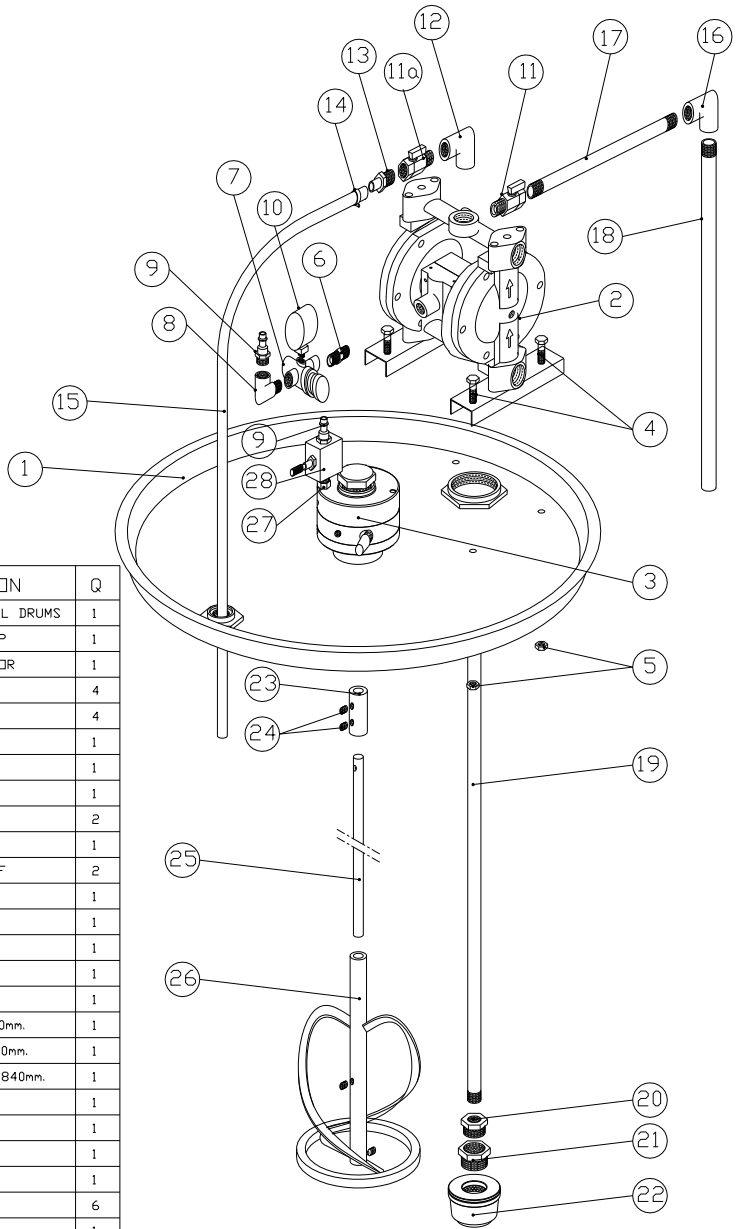


## **OPERATIONS AT THE END OF THE WORK**

- After painting, close the atomization air.
- Adjust the engine air pressure down to 2 bar. pen the recirculation valve.
- Lift the pump and let the paint drain out. Plunge the suction pipe into the solvent container.
- Open the gun and let the paint contained in the pipe drain into the paint container. When the solvent begins to flow, close and then open the gun over the solvent container and let reflow for 1-2 minutes.
- Close the engine feeding air.
- Leave the pump full of solvent.
- Clean the filter of the suction pipe.

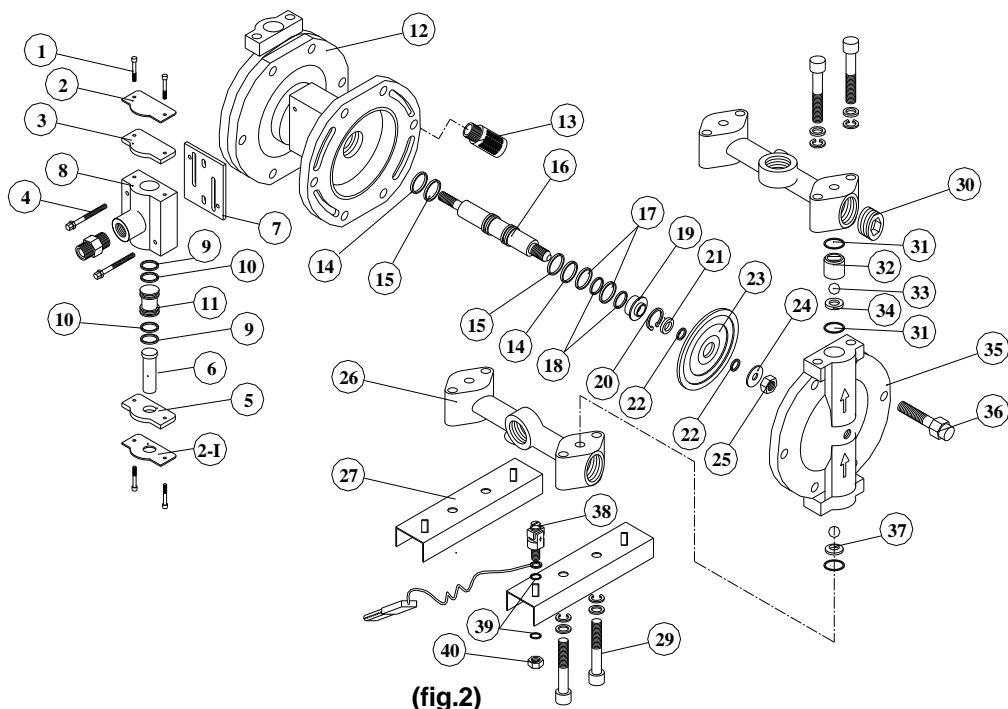
## **HOW TO START THE PAINTING OPERATION**

- Prepare the paint.
- Start the pump by setting the engine air pressure to 2 bar and make sure that the drain valve is open . Lift the pump and wait until it is empty from solvent.
- Plunge the suction pipe into the paint container and wait till the pump is full. Close the drain valve or, if the paint requires a continuous agitation, adjust it to the right flow rate. Set the engine air pressure to 3-4 bar or even more if the viscosity to the paint requires it.
- Open the gun and let the solvent drain out of the pipe.
- Close the gun as soon as the paint begins to flow.
- Set the paint pressure to 1 bar.
- Set the atomization air pressure to 1,5-2 bar.
- Now you can begin to paint.



Nº	REF.	DESCRIPTION	Q
1	7.401.00	COVER FOR 200L DRUMS	1
2	AM52010000	DIAPHRAGM PUMP	1
3	7.100.00	PNEUMATIC MOTOR	1
4	CTA.001	SCREW M8X25	4
5	CTU.106	NUT	4
6	CNA.055	COUPLING	1
7	CNB.054	REGULATOR 1/4	1
8	CNA.069	COUPLING	1
9	CNA.106	COUPLING	2
10	CNB.002	GAUGE	1
11	CNC.004	VALVE 3/8 M-F	2
12	CNA.007	COUPLING	1
13	CNA.091	COUPLING	1
14	CCO.004	CLAMP	1
15	7.400.01	TUBE	1
16	CNA.076	COUPLING	1
17	7.400.02	TUBE 3/8 X 210mm.	1
18	D.600.01	TUBE 3/8 X 420mm.	1
19	7.400.03	TUBE 3/8X3/8X840mm.	1
20	CNA.009	COUPLING	1
21	CNA.005	COUPLING	1
22	D.910.00	STRAINER	1
23	7.200.01	CONNECTION	1
24	CTG.013	PIN	6
25	7.720.01	SHAFT	1
26	7.210.00	BLADE	1
27	G.100.06	COUPLING	1
28	7.300.00	AIR REGULATOR	1

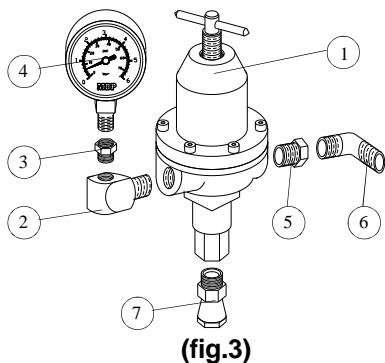




(fig.2)

N°	REF.	DESCRIPTION	Q	N°	REF.	DESCRIPTION	Q
1	CG1001	Screw	4	20	CG1020	Retainer Ring	2
2	CG1002	Gasket	1	21	CG1021	Plate	2
2-I	CG1002-I	Gasket	1	22	CG1022	O-ring-teflon	2
3	CG1003	Gasket	1	23	CG1023	Diaphragm-teflon	2
4	CG1004	Screw	2	24	CG1024	Plate	2
5	CG1005	Gasket	1	25	CG1025	Screw	2
6	CG1006	Plunger	1	26	CG1026	Manifold	2
7	CG1007	Gasket-rubber	1	27	CG1027	Base rack	2
8	CG1008	Director valve	1	29	CG1029	Screw	8
9	CG1009	O-ring-rubber	2	30	CG1030	Plug	4
10	CG1010	O-ring-teflon	2	31	CG1031	O-ring-teflon	6
11	CG1011	Piston-polypropylene	1	32	CG1032	Ball guid	2
12	CG1012	Pump body	1	33	CG1033	Ball	4
13	CG1013	Muffler	1	34	CG1034	Retaining seat	2
14	CG1014	O-ring-rubber	2	35	CG1035	Side cover	2
15	CG1015	O-ring-teflon	2	36	CG1036	Countersink screw	12
16	CG1016	Shaft	1	37	CG1037	Retaining seat	2
17	CG1017	O-ring	2	38	TIE.PQ	Ground	1
18	CG1018	O-ring	2	39	CAR.022	Washer	2
19	CG1019	Busher-bronze	2	40	CTU.107	Nut	1

## PRESSURE REGULATOR

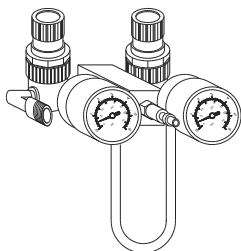


### COMPLETE REGULATOR 601-01-200

- \*1.- 601-01 Fluid regulator
- 2.- G.910.01 Coupling
- 3.- CNA.082 Coupling
- 4.- CNB.003 Gauge
- 5.- CNA.052 Coupling
- 6.- CNA.080 Elbow
- 7.- CNA.121 Swivel

\* Available in tungsten carbide.

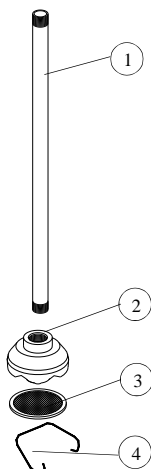
## AIR REGULATORS



(fig.4)

**Mod. F.600.00**

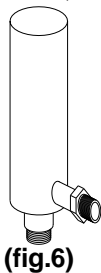
## SUCTION PIPE D.600.00



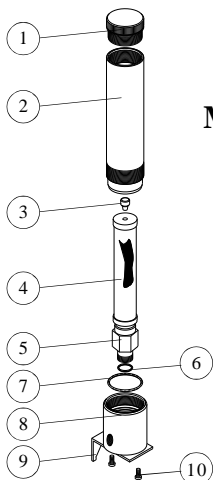
(fig.5)

- 1.- D.600.01 Suction pipe
- 2.- D.600.02 Filter body
- 3.- D.132.00 Filter
- 4.- D.130.02 Spring

## SURGE TANK



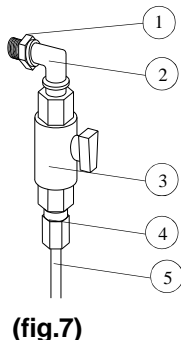
Mod. CG.1167



Mod. G.600.00

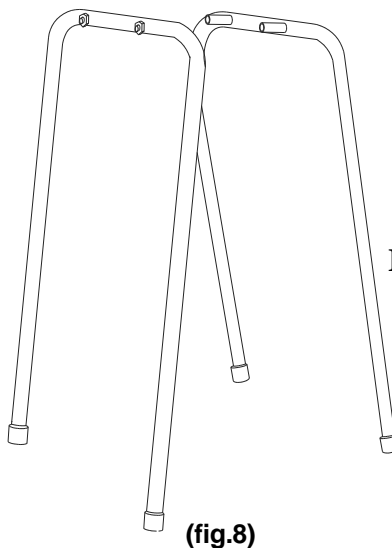
- |                       |                      |
|-----------------------|----------------------|
| 1.- G.600.03 Cover    | 6.- CJT.043 Joint    |
| 2.- G.600.02 Cylinder | 7.- G.600.07 Joint   |
| 3.- G.600.04 End      | 8.- G.600.01 Body    |
| 4.- G.100.22 Filter   | 9.- G.600.06 Support |
| 5.- G.600.05 Racord   | 10.- CTC.001 Screw   |

## DRAIN Mod.G.610.00



- (fig.7)
- 1.- CNA.052 Coupling
  - 2.- CNA.069 Coupling
  - 3.- CNC.003 Valve
  - 4.- CNA.057 Coupling
  - 5.- MAPM.203 Tube

## STAND



Mod. E.600.00

(fig.8)



# TROUBLESHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
Pump will not cycle or cycles once and stop.	Clogged or damaged pilot valves. Dirt in air passageway. Director valve gaskets and plate installed incorrectly.	Repair or replace. Clean valve housing and pilot area. Check and correct.
Pump cycles at stall or fails to hold pressure at stall.	Leaky check valves or o-rings. Worn director valve. Worn shaft seals.	Repair or replace. Repair or replace. Replace.
Pump operates erratically.	Clogged suction line. Check valve is loose. Sticky check valve balls. Diaphragm ruptured. Sticky director valve.	Inspect. Clear. Tighten. Clean or repair. Replace Add two drops oil to air inlet.
Air bubbles in fluid.	Suction line loose. Diaphragm ruptured.	Tighten. Replace.
Pump exhaust air at stall.	Worn or damaged director valve. Sticky director valve. Worn shaft seals.	Repair or replace. Add two drops oil to air inlet. Inspect. Replace.
Pump leaks fluid from check valves.	Worn or damaged o-rings.	Inspect. Replace.
Fluid in exhaust air.	Diaphragm ruptured.	Replace.



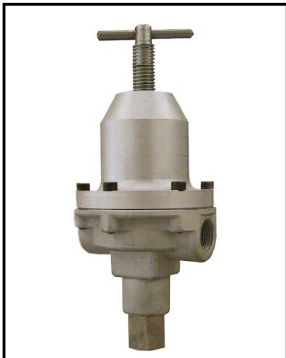
( ZIRCONIUM )  
**J.200 (MANUAL)**



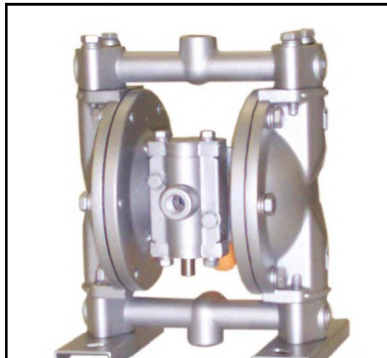
( DYES )  
**ACME BS-222 (AUTOMATIC)**



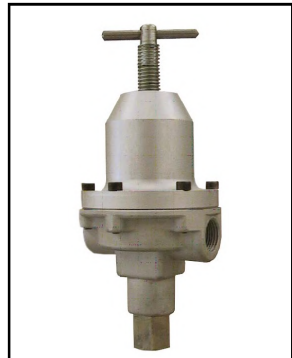
( DYES )  
**W-71 (MANUAL)**



**REGULATOR  
601-01**



**AM.52010000**



**REGULATOR  
601-01CT**



**HP FILTER  
INLET 3/8" OUTLET 1/4"  
G.600.00**



**SCREEN  
G.100.20-60 MESH  
G.100.05-100 MESH  
G.100.22-30 MESH**



**AGITATOR  
E.701.750**

# WARRANTY

M.B.P., will any repairs necessary during the first 12 months after purchase of a new unit, with the exceptions shown under 1 and 2 below, and under the conditions shown in item 3.

- 1.-Damage caused by external abuse, customer negligence, or failure to operate the unit in accordance with the instructions supplied with the unit.
- 2.-Normal maintenance items.
- 3.- Within the first 12 months after purchase, M.B.P. will pay 100% of the cost of covered repairs.

In no case will M.B.P. liability extend beyond repair or replacement of the equipment. Such liability is limited to the amount of the original purchase price paid for the unit, minus a reasonable deduction for the time the unit has been in service. It is the responsibility of the purchaser under this warranty to ship or deliver the failed paint sprayer to the authorized service center at the purchaser's expense. Parts or components covered under this warranty may either be repaired or replaced at M.B.P. option.

Equipment not covered by M.B.P. warranty. Accessories or components of equipment sold by M.B.P. that are not manufactured by M.B.P. are subject to the warranty, if any, of their manufacturer. M.B.P. will provide purchaser with reasonable assistance in making such claims.

The Industry Department of The Basque Government, states that all electric and pneumatic airless equipment manufacture by M.B.P. S.L., follows the "CE" standards under the number 83/392/CEE.



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