



HYDRAULICS

# COLUMN PRESS WITH HYDROPNEUMATIC PUMP “EZ12018”



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**1. ESSENTIAL SAFETY REQUIREMENTS.**



Due to the functional reasons, "dangerous area" is considered to be the space between the columns, the bed and the hydraulic cylinder piston. Due to the material pressed, "dangerous area" is supposed to be the surrounding area to the machine in case of metal parts being ejected during pressing. The speed of the hydraulic cylinder during its extension is less than 30 mm/second. Therefore the machine should be considered by the application of ANNEX V of the Declaration of CE Conformity. It is operator's responsibility to wear special protective clothes and attachments in both feet and face to prevent any damage as a result of accidental fallings and breakings of metal pieces under operation or machine components in touch with.



Face Protection



Feet Protection

Used materials and components are not for the health and safety of operators. The machine is delivered in a wooden pallet and fixed to it in order to be handled by means of a forklift truck or a crane. Once the machine is unpacked, it can be handled by using a crane and slings going through the arc formed by the columns and the head.

**COMMANDS**

- First, we must connect the outlet of the pump to the air net inlet with a pressure between 2-8 bar.
- The cylinder operations are made acting over the hydro-pneumatic pump which has three positions: pull, push and locking. In the pump labelled as Pump and Release. In the middle position it is maintaining the pressure.
- To stop the cylinder, set the pedal of the pump in release position or disconnect the pump from the compressed air net.
- For re-start of the machine, put on service the air net and act over the pump as explained before.

**SAFETY PREVENTIVE ACTIONS**

The machine is equipped with supporting plates in the columns for a perfect stability. The machine gets operated without fixing onto the floor, but it is strongly recommended to do it by drilling the plates in the place of your choice.



- The construction of machine has been calculated to bear without any breaking under conditions of foreseen utilization and for the whole life of the machine. The hydraulic components have been designed and calculated in compliance with the ANSI B30.1 and have been tested at 875 kg/cm<sup>2</sup> pressure.
- Risks due to surfaces, bends and angles: The frame of the machine does not cause to be dangerous in that sense.
- Risk due to hydraulic power: The hydraulic pump is equipped with an internal security valve in the tank, out of operator's control and rated at 700 Kgr/cm<sup>2</sup>.

**MAINTENANCE**

- All the maintenance operations must be performed while the machine is stopped, thus avoiding this way any potentially dangerous situation.
- Poor maintenance programs of the press do not increase the risk, but obviously will revert in a lower performance.
- The hydraulic pump is mounted in the frame and access is very easy. To disassemble the pump, unscrew the bolts in the tap cover. In order to disassemble the cylinder it is required to first disassemble the piping.
- Isolation of the power supply: Release the terminal wiring to disconnect the power supply.
- The machine is designed to assure that all maintenance tasks are performed by the operator in an easy and safe way. All the components that would require any maintenance operation are easy accessible.

**2. TECHNICAL FEATURES.**

**HYDRAULIC CYLINDER D12018**

MODEL	EZ12018
Max. Pushing Capacity ton	123,7
Máx. Pulling Capacity. ton	8,16
Max. Working Pressure Kg/cm <sup>2</sup>	700
Hydraulic Stroke mm.	180
Extension speed at 700 bar . mm/sg	0, 18

**HYDRAULIC PUMP Z24007**

MODEL	EZ12018
Oil tank capacity (useful)	4 litres
Max. Working Pressure Kg/cm <sup>2</sup>	700
Air flow Pressure required	2, 8÷10 bar
Max. Flow (l/min)	0, 2
Max. Weight Without oil. Kg.	5, 5

**FRAME**

Welded-Mechanized frame in ST-52. Mobile table.

MODEL	EZ12018
Min working height	260 mm
Max working height	900 mm
Working width mm.	880 mm
Hydraulic Stroke	180 mm
Weight	720 Kg

### **3. TRANSPORT AND INSTALLATION.**

The machine is delivered properly packed in a wooden pallet. For its handling, it is recommended to use a forklift truck or a crane. In the last case, it is necessary to make the slings trespass the arc of the frame. When doing this operation, you should be cautious and prevent the flexible hoses and coupling from any damage. The machine is stable enough to operate without fixing, but if it is placed in an area commonly operated by mobile machinery (cranes, lifting equipment...) it is strongly recommended to fix it to the desired place by drilling the supporting plates.

**HYDRAULIC CONECTION**

Remove the cap of the rapid coupling from the cylinder exit and connect the hose, threading the rapid coupling until the end with the hand.

**INSTALLING THE GAUGE**

Replace the threaded tap in the top of the cylinder by the gauge which is supplied separately. Tighten the gauge cone to the gauge adaptor seat by using a flat wrench size 22. Hold the gauge screen by hand during threading process and after reaching a comfortable reading position set the gauge screen free so that it turns the last quarter solidarily with the thread.

**PNEUMATIC CONECTION**

Connect the pedal pump to the air compressed net and assure that the pedal is not being pushed.

**CHECKING THE RIGHT OPERATION OF ALL DEVICES AND MECHANISM**

1. Select the maximum working pressure.
2. Make the air inlet in the pump, push the pedal, and check that the cylinder goes forward or returns as you set the valve in one or other position.
3. You can block the pedal with the button located in the side.
4. To unblock the pedal release pressing the side labelled in the pedal.
5. This pump doesn't maintain the load in central position; the pressure goes down in it.
6. Without put anything in the press, repeat the pulling movement, pumping until reach the full stroke of the cylinder. In this moment the pressure will start to be increased and we can observe it now in the gauge. This pressure will go on increasing until reaching the installation maximum pressure; previously chosen. In this stage, the cylinder maintains the pressure (the gauge maintains the reading). Check for no oil leaks in the installation (gauge intake, coupling, etc...).
7. Return the cylinder and place the material to be treated in the press.
8. Once all the steps have been completed, the machine is ready to be used. Repeat the sequence as many times as required to get the knowledge on how to work the machine.

### **4. START-UP.**

Operate the machine as per the previously mentioned indications.

**Regulation of the maximum working pressure**

The maximum pressure developed by the hydraulic system is 700 Kgr/cm<sup>2</sup>. An internal security valve discharges when the system reaches that pressure.

### **5. MAINTENANCE.**

The hydraulic circuit of the press is closed, so in normal conditions no oil leakage should be coming up. In case of oil leakage, after the proper repairing work, you should fill up the tank, ask in the factory for the oil grades; in any case don't use brake liquid in the circuit, it is absolutely forbidden.

As far as, a non-continuous use of the press is considered (1 hour per day), oil replacement should be done once a year. To empty the tank, follow the pump instructions and take the oil out to another container. Please, bear in mind the existing rules for waste processing when handling the used oil.

Keep greasy and lubricated the pin bearings, the piston and in general all the parts that might be in friction.

	SYMPTONS	POSIBLE CAUSE	SOLUTIONS
1	Piston does not extend	1.1 Prime less pump	1.1 Maintain the pump started for some minutes.
		1.2 Filter is dirty.	1.2 Remove and clean it properly.
		1.3 Not enough oil in the tank	1.3 Check the oil level.
		1.4 Pressure retainer damaged.	<b>1.4 Replace the retainer.</b>
		1.5 Cylinder body damaged.	<b>1.4 Repair the cylinder body.</b>
		1.6 Distribution valve damaged.	<b>1.5 Repair the valve.</b>
		1.7 Pneumatic problem	1.7 Check the installation
2	Cylinder does not reach pressure.	2.1 Internal valve unrated	<b>2.1 Rate again the valve.</b>
		2.2 Pressure retainer damaged.	<b>2.2 Replace the retainer.</b>
		2.3 Cylinder body damaged.	<b>2.3 Repair the cylinder body.</b>
3	Cylinder does not hold pressure.	3.1 Pressure retainer damaged.	<b>3.1 Replace the retainer.</b>
		3.2 Distribution valve damaged	<b>3.2 Repair the valve.</b>
4	Cylinder does not retract.	4.1 Pressure retainer damaged.	<b>4.1 Cambiar el retén.</b>
		4.2 Distribution valve damaged.	<b>4.2 Repair the valve.</b>

Solutions written in bold face should be done by specially trained staff. Use always original LARZEP repair kits.

### **6. WARRANTY.**

**LARZEP, S.A.** guarantees its products against all design and manufacturing defects for the durations of two years from the date of purchase. This guarantee does not include the ordinary wear of both metal and non-metal parts, abuse, using the equipment beyond its rated capacity and any wear or damage incurred as a result of using a hydraulic fluid which is not recommended by **LARZEP, S.A.**

Please note that if the equipment is disassembled or serviced by anyone other than an authorized service dealer or by **LARZEP, S.A.**, this guarantee is rendered null and void.

In the event of a warranty claim, return the equipment, to **LARZEP, S.A.** or the authorized dealer which sold you the hydraulic equipment, **LARZEP, S.A.** will repair or replace the faulty equipment, whichever is deemed most appropriate. **LARZEP, S.A.** shall not be held liable for any consequential damages or losses, which may occur as a result of faulty equipment

## **7. DECLARATION OF CONFORMITY.**

### **DECLARACION DE CONFORMIDAD**

LARZEP, S.A.  
Dirección: Avda. Urriaga, 6  
48269 Mallabia ESPAÑA

Declaramos bajo nuestra exclusiva responsabilidad la conformidad de los productos a los que refiere esta declaración, con las disposiciones de la directiva:  
89/392/CEE, 91/368/CEE, 93/44/CEE, 93/68/CEE, 98/37/CEE

**E**

### **DECLARATION OF CONFORMITE**

Nous, LARZEP, S.A.  
Adresse: Avda. Urriaga, 6  
48269 Mallabia SPAIN

Déclarons sous notre seule responsabilité que les produits auxquels se réfère cette déclaration sont conformes aux dispositions des Directives:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**F**

### **DECLARAÇÃO DE CONFORMIDADE**

Nós, LARZEP, S.A.  
Endereço: Avda. Urriaga, 6  
48269 Mallabia SPAIN

Declaramos, sob nossa única responsabilidade, que os seguintes produtos, incluídos nesta declaração estão em conformidade com o disposto na Directiva:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**P**

### **ÖVERENSSTEMMELSEERKLÆRING**

Vi, LARZEP, S.A.  
Adresse: Avda. Urriaga, 6  
48269 Mallabia SPAIN

Erklærer på eget ansvar, at følgende produkter som er omfattet af denne erklæringen, er i overensstemmelse med bestemmelserne i Direktiv:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**DK**

### **ERKLÆRINGOM ÖVERENSSTEMMELSE**

Vi, LARZEP, S.A.  
Adresse: Avda. Urriaga, 6  
48269 Mallabia SPAIN

Erklærer på eget ansvar, at følgende produkter som dekkes af denne erklæringen, er i overensstemmelse med bestemmelserne i Direktiv:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**N**

### **ÜBEREINSTIMMUNGSERKLÄRUNG**

Wir, LARZEP, S.A.  
Anschrift: Avda. Urriaga, 6  
48269 Mallabia SPAIN

Erklären auf eigene Verantwortung, daß folgende Produkte, auf die sich diese Erklärung bezieht, mit den Bedingungen der Direktiven 89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC übereinstimmen.

**D**

Tipo, Type, Typ, Tyypki.

**SM / SH / SP / SMP / SX / SMX / ST / STX / SL / SMA / SHA / SSR / T / TE / TD / D / DH /  
DDR / Z / ZR / W / X / YA / YG / YZ / HM / HE / HG / HZ / HS / WI / CK / CC / CN / FU / FV /  
FZ / FA / CY / AA / AU / CT / C / KC**

**A / AB / AC / BL / B / AF / F / HN / DLG / DL / DP / VA / VB / VC / VZ / EC / EE / EG / EM /  
EZ / CA / CS**

Mallabia, ESPAÑA 2005 / 04 / 27

Lugar y fecha, place and date, lieu et date, plats och datum, paikka ja päivämäärä, udstedelsessted og-dato, ort und datum, plaats en datum, local e data, luogo e data.

### **DECLARATION OF CONFORMITY**

We, LARZEP, S.A.  
Address: Avda. Urriaga, 6  
48269 Mallabia SPAIN

Declare under our sole responsibility that the following products to which this declaration relates conform with the provisions of Directives:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**GB**

### **DICHIARAZIONE DI CONFORMITÀ**

Noi, LARZEP, S.A.  
Indirizzo: Avda. Urriaga, 6  
48269 Mallabia SPAIN

Dichiariamo sotto la nostra esclusiva responsabilità che i prodotti ai quali questa dichiarazione si riferisce sono conformi quanto previsto dalle Direttive:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**I**

### **VAATIMUSTEMUKAISUUSVAKUUTUS.**

Me, LARZEP, S.A.  
Osoite: Avda. Urriaga, 6  
48269 Mallabia SPAIN

Vakuutamme yksinomaan omalla vastuullamme, että seuraavat tuotteet, joihin tämä vakuutus liittyy, ovat seuraavien Direktiivien vaatimusten mukaisia:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**FIN**

### **VERKLARINGVAN OVEREENKOMST.**

Wij, LARZEP, S.A.  
Adres: Avda. Urriaga, 6  
48269 Mallabia SPAIN

Verklaren geheel onder eigen verantwoordelijkheid dat de volgende producten, waarop deze verklaring heeft in overeenstemming zijn met de bepalingen van Richtlijn:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**NL**

### **FORSÄKRAN OM ÖVERESSTÄMMELSE**

Vi, LARZEP, S.A.  
Adresse: Avda. Urriaga, 6  
48269 Mallabia SPAIN

Försäkrar under eget ansvar att följande produkter som omfattas av denna försäkran är i överensstämmelse med villkoren i Direktiv:  
89/392/EEC, 91/368/EEC, 93/44/EEC, 93/68/EEC, 98/37/EEC

**S**

**LARZEP, S.A.**

Nombre y firma, name and signature, nom et signature, namn och underskrift, nimi ja nimikirjoitus, navn og underskrift, name und underskrift, naam en handtekening, nome e assinatura, nome e firma.

**INSTRUCTION MANUAL**  
*Column Press with Hydropneumatic Pump "EZ12018"*

ANEX: DRAWING

