

# PS710

GB

## INSTRUCTIONS FOR USE

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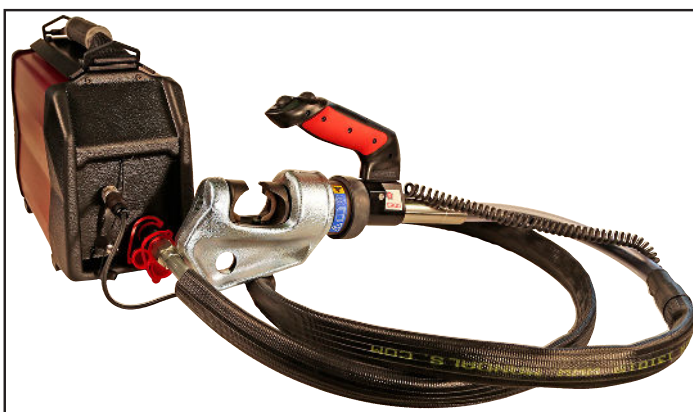
PS710D



PS710E



PS710R



**ELPRESS**<sup>®</sup>

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## **IMPORTANT! read this section before using the PS710!**

### **1. Personal safety**

#### **Personal injury risk**



- This equipment may only be used by persons with sufficient knowledge about it's application and function.
- Before the Product is used this Instruction for use must be studied carefully and all instructions must be followed.
- The use of other hydraulic tools than from Elpress may bring about considerable risks for personal injury.

PS710 is an electro hydraulic pump exclusively designed for the use of Elpress hydraulic tools. The mains cable may only be connected to a 100-240 VAC outlet with protective earth (PE). This Instruction for use shall always be kept with the PS710.



- **The PS710 creates a very high working oil pressure (up to 700 bar or 10 000 psi) in the pump, hose and tool. To minimize the risk when handling, always use protective glasses and gloves.**
- **Do not try to disconnect tool in pressurised state.**
  - **The control handle has to be connected to the tool.**

Always check the PS710 before use, with special regards to damage on the hose, control cable, attached tool and mains cable. If damage is seen or suspected, the unit must not be used and immediate service actions must be taken.

Note that only authorised service units with access to technical documentation may service the PS710. Always use spare parts supplied from Elpress.

Note that the hose for this unit may look much like any hydraulic hose, but carries about three times the pressure of conventional hydraulic hoses. It is therefore absolutely necessary to use only hoses and fittings designed for these high pressures.

Reduce the safety risks and prolong the service time for the PS710 by handling it with care and by keeping it clean.

Do not work with attached tools directed towards any one.

Observe the movements of the attached tool to avoid finger damages.

An attached tool is quickly "frozen" by releasing the start switch on the control handle.



The stop switch stops and retracts the tool movement. This function is checked at each starting up sequence.

At longer stops, switch off the unit and disconnect the mains cord plug.

The **PS710** must not be used for work in explosive environments.

## 2. Assistance

In case of questions regarding this Product, please contact your Elpress supplier or Elpress directly through the customer support dept at the main office in Kramfors, Sweden.

Telephone	+46 612 71 71 99
Telefax	+46 612 71 71 51
E-mail	sales@elpress.se

## 3. General description

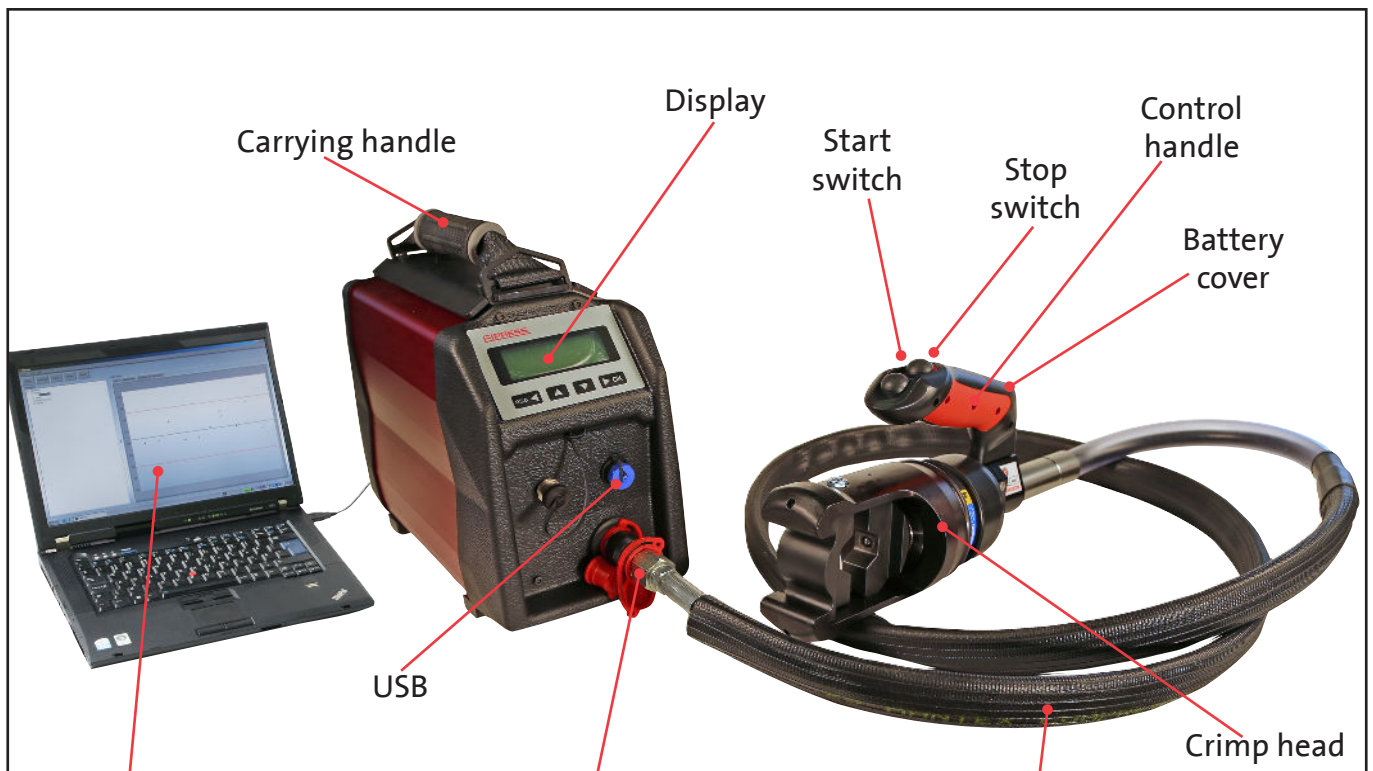
**PS710** is an electro hydraulic pump developed for many different crimp needs where high performance, flexibility and reliability is required. The portable pump unit is built in three basic versions, all with customizing possibility.

**PS710D** is the version for cable harness manufacturing with high flow pump, CAN-bus for communication with Elpress CS2500 crimp unit and PC software for crimp process control and analysis, statistic process control on computer in real-time. Mains power 85-276 VAC.

**PS710E** can be powered both from Li-ion battery 28.8 V and mains power 85-276 VAC. Equipped with electronic control system for supervision of crimp procedure. Display with keypad and a possibility of PC communication (USB), add new aspects to quality assurance.

**PS710R** has a design without electronic traceability of crimps but still the same hydraulic capacity and high personal safety. Mains power 85-276 VAC with 24VDC long life time relay technique.

## 4. PS710 System components

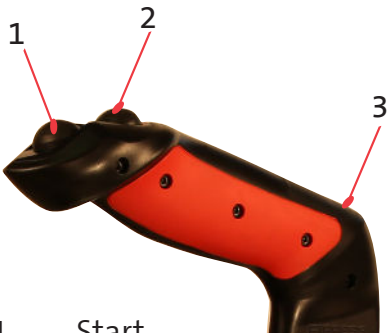


PC Software for crimp analysis and quality process integration

Hydraulic connection

Hydraulic hose

### ERGOCOM handle

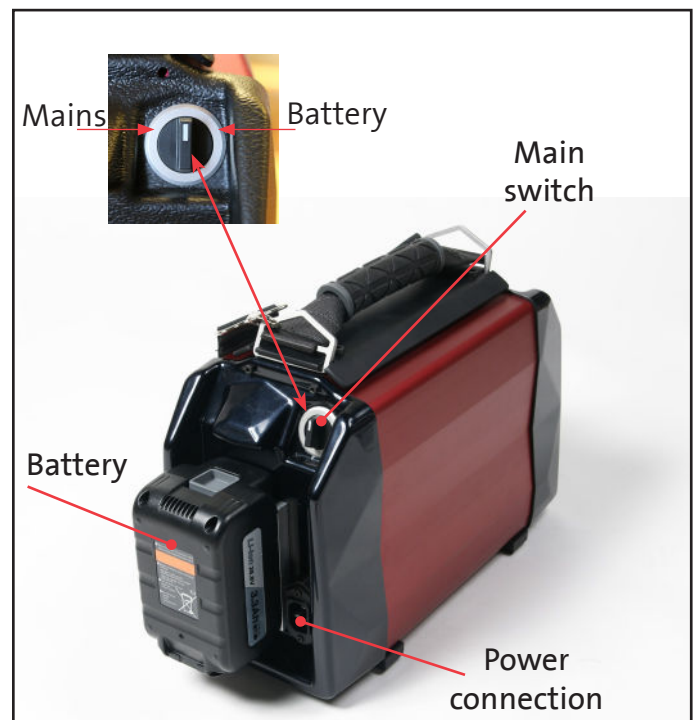


1. Start
2. Stop
3. Battery cover (AAA 1,5 2 st, 2 mm allen key)

Battery status of the control handle is indicated by  $\leq 2.5V$  to display text "Handle bat. low. Battery must be changed".

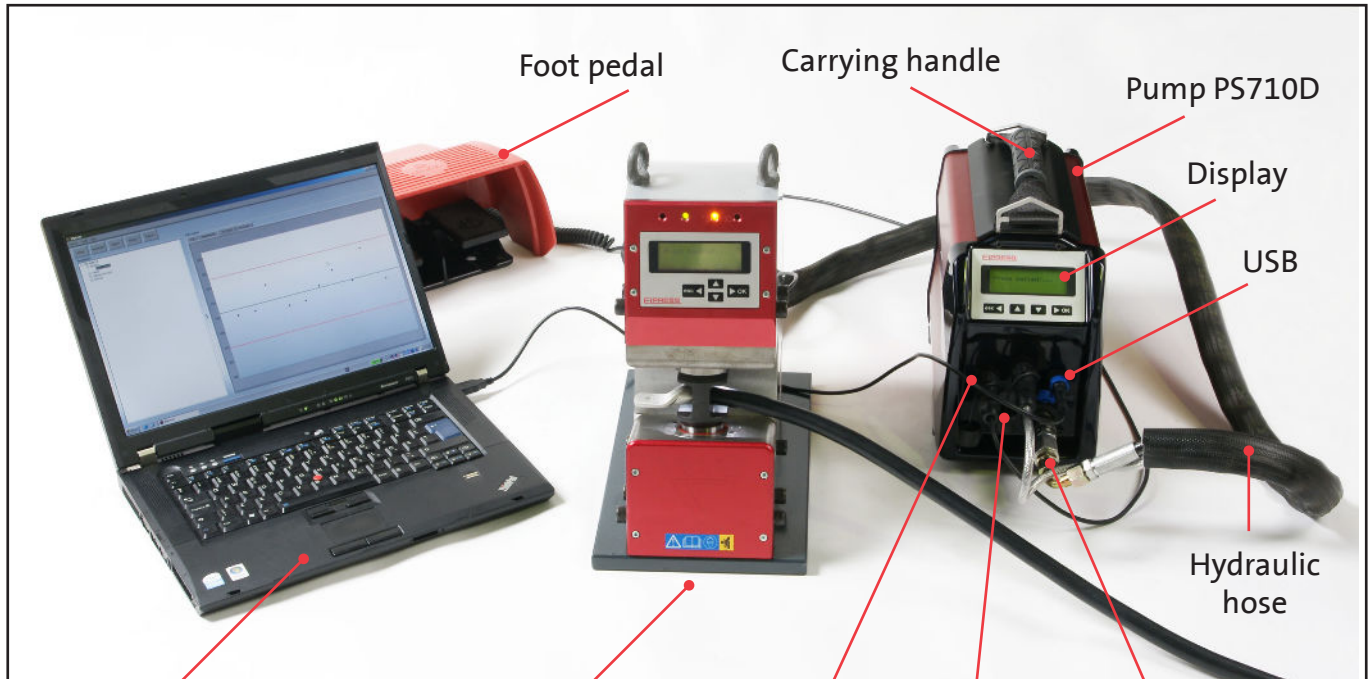
If the battery voltage drops below 2.1V will a stopping alarm "Handle bat. flatt".

### PS710E Backside



## 4. PS710 System components

### PS710D



PC software for crimp analysis and quality process integration

Crimp station CS2500

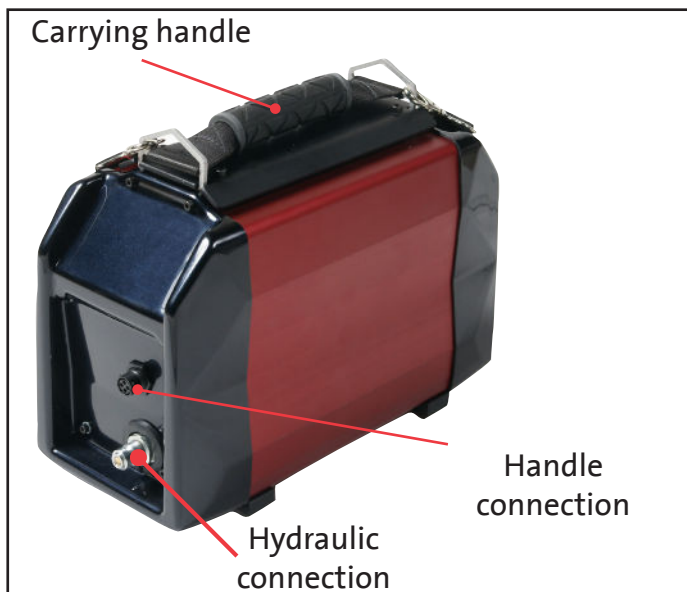
Foot pedal connection

CAN bus system

Hydraulic connection

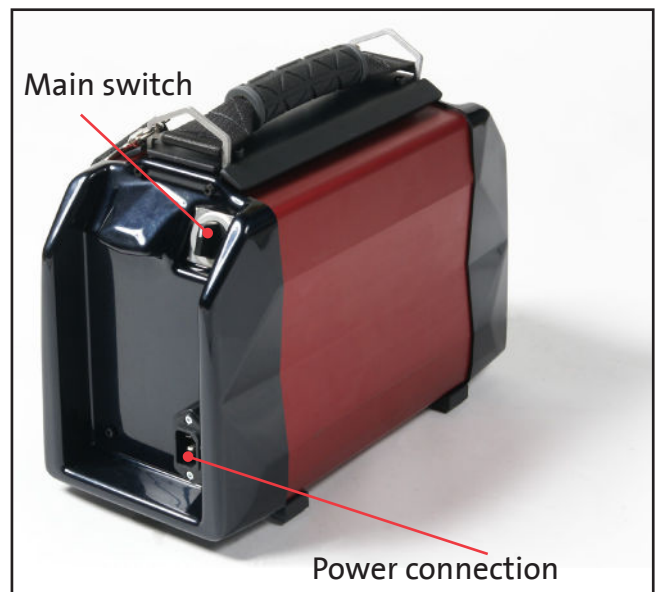
### PS710R

#### Front



### PS710R

#### Back



## 5. Functions

The operator controls the pump with the start- and stop switches on the handle. When the start-switch is pushed, the pump motor starts and a hydraulic pressure is built up in hose and crimp-tool. When a preset max pressure is reached, the system is automatically unloaded and tool retracts. This procedure is often called a crimp cycle. A crimp cycle can be interrupted, by releasing the start-switch, restarted again by pushing start-switch or ended, by pushing the stop-switch at any time. If foot pedal is used, start and stop function is the same.

The ERGOCOM use wireless communication, bluetooth, and is available for PS710E. Each handle is coded to a certain pump from safety aspects. The pump ID No is marked on the handle.

The ERGO handle is the version with wired communication useable for PS710E+PS710R.

**Start of pump.** Always attach a crimp tool to the hose in depressurised state and connect the handle to the tool.

This is for personal safety, never run the pump without tool, crimping or cutting tool.

1. Set main switch in position "off"
2. Connect the mains cord plug to a 100-240 VAC power outlet with protective earth, PE
3. Set main switch in position "on"
4. Press stop switch on the handle to activate the electronic self check, (PS710E and PS710D)

Change of tool accessories should only be done with main switch in position "0"

When pump is not used, always set main switch in position "0" and disconnect power cable.

For longer stops, tool should be disconnected from hydraulic hose and hose from pump.

Battery should preferable be kept in dry environmental when not in use.

Before charging Li-ion battery, the separate charger instruction must be read.

In the electronic control system for PS710E and PS710D every crimp characteristic with the crimp Id-No is saved. All the crimps can be analyzed afterwards or on-line in real-time by using the Elpress Analyser software in a separate PC, connected to the pump with USB. This give a unique opportunity for quality check.

If the pump memory is full and crimps are not to be transferred to an external PC the pump memory can be deleted by use of the "Clear logs" function in the main menu.

## 6. Display menu on PS710E and PS710D

When the pump is made ready for use, display will show “Date and time” and “Pump-No”  
The four switches on the keypad are used for navigation in the control system.

“Main menu” is reached by pushing the “OK” switch. Up and down switches moves the cursor to desired line, then the switch marked “OK” must be pressed. Return to main menu by pressing the “esc” switch. In the main menu it is easy to get information about pump status.

- Log info                                    Show used part of computer memory
- Reset counter                            Reset counter of crimps shown in display
- Clear logs                                Clear out memory from all crimplogs
- Settings                                    Show set values
- Active faults                              Show and clear out of error messages
- Admin                                      Time set log-in
- Version info                              Information about software

## 7. Use of PS710E and PS710D

When the pump has been switched on, the stop switch on the handle or the foot pedal has to be activated once before the pump is ready to be used.

By pressing the start switch the pump motor starts and oil flow into the crimp tool cylinder. Start switch can be released at any time and the pump immediately stops.

After a complete crimp cycle, information about relevant parameters is shown in display.

By using the down switch on the key-pad this information is easy reached.

<p><b>EIPRESS</b></p> <p>Crimp complete Log ID: 00069 Cycle counter: 00222 Total counter: 17831</p> <p>esc ◀ ▲ ▼ ▶ OK</p>	<p><b>Crimp complete</b></p> <p><b>Log ID</b></p> <p><b>Cycle counter</b></p> <p><b>Total counter</b></p>	<p>Crimp cycle has been fulfilled, max pressure reached Crimp identity saved with crimp characteristic Counts every crimp (p &gt; 15 bar), possible to reset A not resetable total press counter</p>
<p><b>EIPRESS</b></p> <p>Press time: 0.99s Max pressure: 630Bar Max current: 23.0A Min battery: 26.0V</p> <p>esc ◀ ▲ ▼ ▶ OK</p>	<p><b>Press time</b></p> <p><b>Max pressure</b></p> <p><b>Max current</b></p> <p><b>Min battery</b></p>	<p>Crimp time, when pressure p is over 15 bar Max hydraulic pressure reached during crimp cycle Max motor current reached during crimp cycle Min voltage, battery or net power, during crimp cycle</p>
<p><b>EIPRESS</b></p> <p>Oil temp: 21.2C Motor temp: 21.6C</p> <p>esc ◀ ▲ ▼ ▶ OK</p>	<p><b>Oil temp</b></p> <p><b>Motor temp</b></p>	<p>Max hydraulic oil temperature during crimp cycle Max DC-motor temperature during crimp cycle</p>

If any of the parameters above, press time, pressure, current, voltage, oil temp or motor temp is out of preset limits there will be an error message with information about the actual problem. When a crimp cycle has been started but not completed within 60 sec, a message “Time out” will be shown in the display. All faulty messages can be cleared in “Active faults” menu.



## Use of PS710R

This version is made without electronic control system which limit the possibilities to give information to the operator about pump status. Crimping starts by pushing the start switch on the handle, interrupting the crimp movement by releasing the start switch and at any time stopping the pump and retracting the crimp tool with the stop switch on the handle.

A complete crimp cycle is made automatically with pressure built up to a preset max pressure when the tool retracts and hydraulic is unloaded. Main switch should be turned off when the pump is not used.

## 8. Maintenance / Service

The life time of a PS710 is prolonged if the unit is kept clean and dry. A daily check of hydraulic hose, handle with signal cable, signal connectors and mains cable is important. If damages occur, these components must be replaced before using the pump as it affect personal safety. When hydraulic hose and cable are disconnected from the pump the plastic cover caps must be mounted on the connectors.

Best way to transport and keep the pump protected is to use the Elpress wooden box.

The Li-ion battery only for PS710E should be kept dry and protected from short circuits.

All battery charging should be made indoor, temperatures between 0-30 °C. See charger instruction.

### TROUBLESHOOTING

**Display or switches do not function**

Check mains outlet power fuse and than cable and connector. Test with battery power, only PS710E

### ERROR MESSAGES DISPLAY

**Stop button stuck**

Signal cable not connected or damaged

**Battery low**

Charge or change battery

**Motor temp high**

Improve air ventilation around pump

**Log memory full**

Use "Clear logs" in main menu

**High motor current**

Contact Elpress

**Time for service**

Time for preventive maintenance

## PREVENTIVE MAINTENANCE AGREEMENT

Elpress Service offer a flexible solution for enhanced security, with rapid service and high availability:

- Planned and preventive maintenance guarantees better performance for your equipment.
- Regular service intervals minimize the risk of unforeseen stoppages by indicating any safety or functional defects and by recommending measures to avoid such problems.
- Regular service intervals are normally implemented every 12 months at a fixed price.
- The price is based on the service level solution and tool equipment.
- A certificate is issued after the equipment has complied with calibration requirements.

**Elpress service agreements are arranged per tool and service level:**

**Elpress Basic:** Preventive maintenance, calibration with certification

**Elpress Advance:** Includes Elpress Basic + corrective maintenance

## 9. Disposal

Electrical equipment shall not be disposed together with normal waste. In accordance with European Directive 2011/65/EU RoHS, 2012/19/EU, waste of electric and electronic equipment that reached the lifetime must be collected separately and decommissioned and sent to appropriate environmentally responsible recycling facility, regional collection centre or nearest Elpress representative.

Material used in PS710 are recyclable. The pump contains one litre of mineral oil which never should be thrown into nature.

## 10. Technical specifications



PS710 is an electro hydraulic portable pump made for use with Elpress crimping tools.

It is available in three basic models:

- PS710E - with electronic control system and battery.
- PS710R - with relay control and without battery.
- PS710D - suitable together with Elpress CS2500.

Max hydraulic pressure	Normal preset to 630 bar (range 25-700 bar)
Oil flow at 20 bar	0.6 litre/min (PS710D 1.2 litre/min)
Oil volume	1.0 litre
Oil type	HYDREX MV 22 (hydraulic oil, mineral type) or similar
Mains power	85-276 VAC 50/60 Hz
Dimensions	370x170x280
Weight	11.5 kg
Battery (PS710E)	Li-ion 28.8 V 3.0 Ah
Crimps/battery charge	120 crimps with Cu 150 mm <sup>2</sup>
Charger 230 VAC 50 Hz	10.8-28.8 V charging time 65 min
Protection	IP54
Ambient temperature	- 15 to 40 °C
Others	Elpress PS710 Analyser software for crimp process control  USB connection to PC, cable included in software kit CAN bus system with PS710D and CS2500
CE-requirements met	Machine safety 2006/42/EG Electro magnetic compatibility 2014/35/EU Low voltage directive 2014/30/EU RoHS 2011/65/EU WEEE 2012/19/EU

# 11. Declaration of conformity


	ELPRESS	Dokument.nr Document No 0901-013000C	Ändr.nr. Change No 19170	Datum Date 15-11-25	Sida Page 1 (2)
	Produkt Product PUMP PUMP ELPRESS PUMP	PS710	5204-009000 5204-009100 5204-009200	Godkänd av Approved by 	Upprättad av Made by KS

ÖVERENSSTÄMMELSEDEKLARATION  
 ERKLÆRING OM OVERENSSTEMMELSE  
 OVERENSSTEMMELSESERKLÆRING  
 VAATIMUSTENMUKAISUUSVAKUUTUS  
 DECLARATION OF CONFORMITY  
 ÜBEREINSTIMMUNGSDEKLARATION  
 VERKLARING VAN OVEREENSTEMMING  
 DÉCLARATION DE CONFORMITÉ  
 DICHIARAZIONE DI CONFORMITÀ  
 DECLARACIÓN DE CONFORMIDAD  
 DECLARAÇÃO DE CONFIRMADADE



Tillverkare/Producent/Produsent/Valmistaja/Manufacturer/Hersteller/  
 Producent/Fabricant/Costruttore/Fabricante/Fabricante

ELPRESS AB  
 P.O. Box 186  
 S-872 24 KRAMFORS, SWEDEN

Tel +46 612 71 71 00  
 Fax +46 612 71 71 51  
 Kramfors 2015-11-25

  
 .....  
 Per Fällström  
 Technical manager

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	ELPRESS	Dokument.nr Document No 0901-013000C	Ändr.nr. Change No 19170	Datum Date 15-11-25	Sida Page 2 (2)
	Produkt Product <b>PUMP</b> PUMP	PS710	5204-009000 5204-009100 5204-009200	Godkänd av Approved by 	Upprättad av Made by <b>KS</b>

**ELPRESS AB**

**Försäkrar att:** ELHYDRAULISK PUMP MED TILLBEHÖR

**Assure that:** ELECTROHYDRAULIC PUMP WITH ACCESSORIES

**Typ / Type:** PS710

Tillverkningsår/Manufacturing year:  
Serie nr. / Serial No:

Är tillverkad enligt bestämmelserna i direktiv 2006/42/EG, 2014/35/EU, 2014/30/EU  
EN ISO 12100:2010, EN 60204-1, EN ISO 4413:2010, EN 61000-6-2 och 61000-6-3

Er produsert i henhold till Direktiv 2006/42/EG, 2014/35/EU, 2014/30/EU  
EN ISO 12100:2010, EN 60204-1, EN ISO 4413:2010, EN 61000-6-2 og 61000-6-3

Er produceret ifølge bestemmelserne i Direktiv 2006/42/EG, 2014/35/EU og 2014/30/EU  
EN ISO 12100:2010, EN 60204-1, EN ISO 4413:2010, EN 61000-6-2 og 61000-6-3

On valmistettu 2006/42/EG, 2014/35/EU, 2014/30/EU  
EN ISO 12100-2010, EN 60204-1, EN ISO 4413:2010, EN 61000-6-2 ja 61000-6-3 direktivin pykälien mukaan

Is produced in accordance with the provisions of 2006/42/EG, 2014/35/EU, 2014/30/EU  
EN ISO 12100-2010, EN 60204-1, EN ISO 4413:2010, EN 61000-6-2 and 61000-6-3

Nach den Bestimmungen der Vorschrift 2006/42/EG, 2014/35/EU, 2014/30/EU hergestellt wurde  
EN ISO 12100-2010, EN 60204-1, EN ISO 4413:2010, EN 61000-6-2 und 61000-6-3

Is geproduceerd naar de voorschriften van 2006/42/EG, 2014/35/EU, 2014/30/EU  
EN ISO 12100-2010, EN 60204-1, EN ISO 4413:2010, EN 61000-6-2 en 61000-6-3

Est produit conformément aux stipulations de la Directive 2006/42/EG, 2014/35/EU, 2014/30/EU  
EN ISO 12100-2010, EN 60204-1, EN ISO 4413:2010, EN 61000-6-2 et 61000-6-3

E' costruita in conformità alla Direttiva 2006/42/EG, 2014/35/EU, 2014/35/EU  
EN ISO 12100-2010, EN 60204-1, EN ISO 4413:2010, EN 61000-6-2 ed 61000-6-3

Fabricada de acuerdo con la Directiva 2006/42/EG, 2014/35/EU, 2014/30/EU  
EN ISO 12100-2010, EN 60204-1, EN ISO 4413:2010, EN 61000-6-2 y 61000-6-3

Fabricado em conformidade com as Directivas 2006/42/EG, 2014/35/EE, 2014/30/EU  
EN ISO 12100-2010, EN 60204-1, EN ISO 4413:2010, EN 61000-6-2 e 61000-6-3

# 12. Accessories

## PS710

Article No	PS710E 5204-009100	PS710R 5240-009200	PS710D 5204-009000
<b>Mains cable</b>			
For EU	8010-050500	<input type="checkbox"/>	<input type="checkbox"/>
For China	8010-051300	<input type="checkbox"/>	<input type="checkbox"/>
For USA	8010-052700	<input type="checkbox"/>	<input type="checkbox"/>
<b>Hydraulic hose</b>			
2.4m PS710E ergo	5220-181400	<input type="checkbox"/>	
5m PS710E ergo	5220-181500	<input type="checkbox"/>	
2.4m PS710E ergocom	5220-182000	<input type="checkbox"/>	
5m PS710E ergocom	5220-182100	<input type="checkbox"/>	
2.4m PS710E old model	5260-010200	<input type="checkbox"/>	
5m PS710E old model	5260-010300	<input type="checkbox"/>	
2.4m PS710R ergo	5220-181600		<input type="checkbox"/>
5m PS710R ergo	5220-181700		<input type="checkbox"/>
2.4m PS710R old model	5260-010000		<input type="checkbox"/>
5m PS710R old model	5260-010100		<input type="checkbox"/>
	5220-070300		<input type="checkbox"/>
<b>Battery PS710EBP</b>			
Quantity?	8010-051400	1 <input type="checkbox"/> 2 <input type="checkbox"/>	
<b>Battery charger PS710EBC</b>			
For EU	8010-051500	<input type="checkbox"/>	
For USA compl with converter	8010-058300	<input type="checkbox"/>	
<b>Analyzer</b>			
	5220-189400	<input type="checkbox"/>	<input type="checkbox"/>
<b>Strap</b>			
	8021-001200	<input type="checkbox"/>	<input type="checkbox"/>
<b>Foot control unit FCU</b>			
	5220-181800	<input type="checkbox"/>	<input type="checkbox"/>
	5220-181900		<input type="checkbox"/>
<b>PS710E251</b>			
PS710E	<b>5204-008200</b>	<input type="checkbox"/>	
Mains cable EU	5204-009100		
2.4m hydraulic hose ergocom	8010-050500		
PS710EBP	5220-182000		
PS710EBC	8010-051400		
Strap	8010-051500		
	8021-001200		
<b>PS710E501</b>			
PS710E	<b>5204-008400</b>	<input type="checkbox"/>	
Mains cable EU	5204-009100		
5m hydraulic hose ergocom	8010-050500		
PS710EP	5220-182100		
PS710EBC	8010-051400		
Strap	8010-051500		
	8021-001200		

## 12. Accessories

Article No:	PS710E	PS710R
	5204-009100	5240-009200
<b>PS710R250</b>	<b>5204-008300</b>	<input type="checkbox"/>
PS710R	5204-009200	
Mains cable EU	8010-050500	
2.4m hydraulic hose ergo	5220-181600	
Strap	8021-001200	
<b>PS710R500</b>	<b>5204-008500</b>	<input type="checkbox"/>
PS710R	5204-009200	
Mains cable EU	8010-050500	
5m hydraulic hose ergo	5220-181700	
Strap	8021-001200	
<b>PS710E251-WOBC</b>	<b>5204-008600</b>	<input type="checkbox"/>
PS710E	5204-009100	
Mains cable US	8010-052700	
2.4 m hydraulic hose ergo	5220-181400	
PS710EBP	8010-051400	
PS710EBC US compl	8010-058300	
Strap	8021-001200	
<b>PS710ECN</b>	<b>5204-009500</b>	<input type="checkbox"/>
PS710E	5204-009100	
Mains cable China	8010-051300	
PS710EBP	8010-051400	
PS710EBC CN+US	8010-052300	
Strap	8021-001200	
<b>PS710RCN</b>	<b>5204-009600</b>	<input type="checkbox"/>
PS710R	5204-009200	
Mains cable China	8010-051300	
Strap	8021-001200	
<b>PS710E501-US-WOBC</b>	<b>5204-012300</b>	<input type="checkbox"/>
PS710E	5204-009100	
Mains cable US	8010-052700	
5m PS710E ergo	5220-181500	
Strap	8021-001200	
<b>PS710E501-US</b>	<b>5204-012400</b>	<input type="checkbox"/>
PS710E	5204-009100	
Mains cable USA PS710	8010-052700	
Hydraulic hose compl 5m Ergo PS710E	5220-181500	
PS710EBP	8010-051400	
PS710EBC US compl	8010-058300	
Strap	8021-001200	

