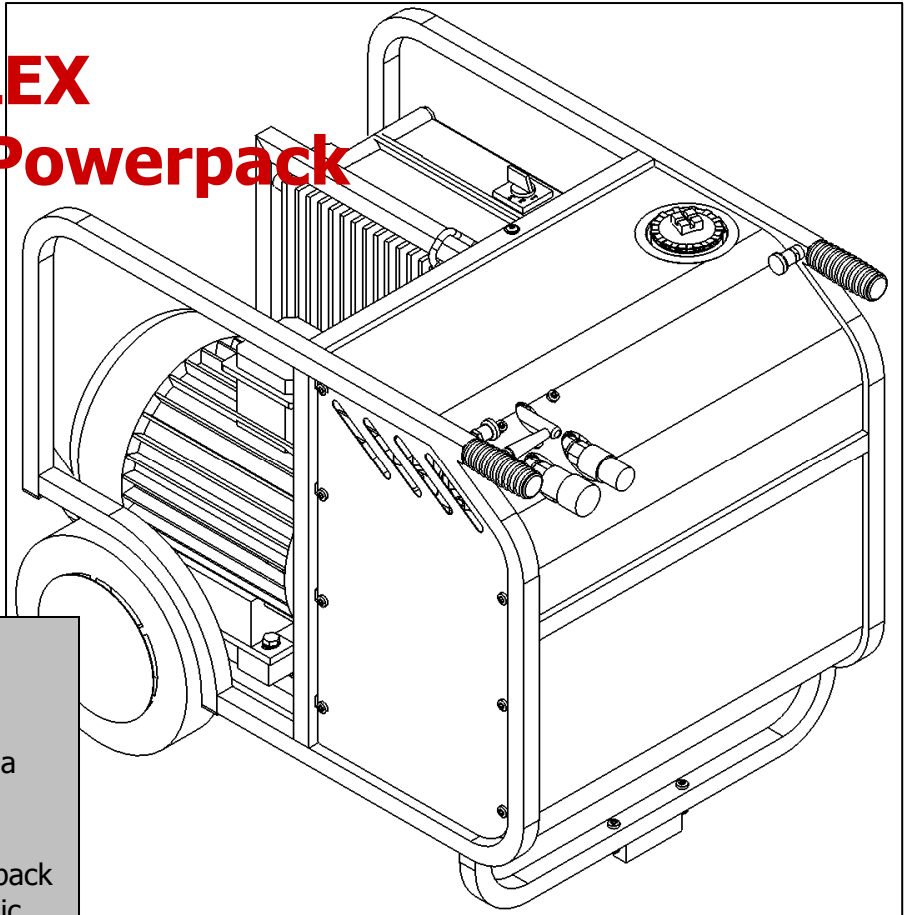


# Operating Manual

## HPP18E FLEX Hydraulic Powerpack

From serial No. 4708

Revised  
13.04.2011



### Prior to Operation

We thank you for choosing a HYCON powerpack.

Please note that the powerpack is delivered without hydraulic oil, and therefore it must be filled up with hydraulic oil prior to operation.

To ensure smooth operation and long-lasting performance of your new powerpack, we recommend that you study this operating manual carefully and pay special attention to the

### Safety and Service Precautions

We hope you will be satisfied with your new HYCON powerpack.

Best regards  
HYCON A/S



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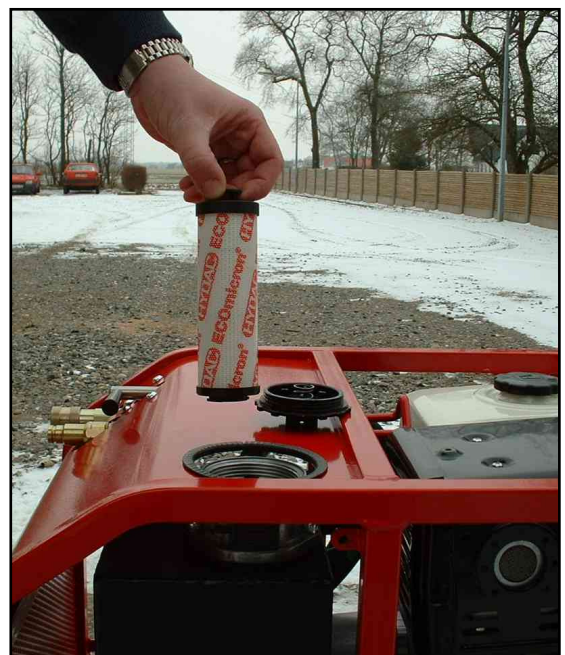
## Safety Precautions

1. Always use protective earplugs even though the powerpack has a low noise level.
2. Always connect hoses before starting.
3. Always keep electric box, cables and sockets clean.
4. In case of non-operation or performance of service, always turn off the motor.
5. Never start the motor without side covers.
6. Operation of the powerpack without tool connected and with lever at "ON" may cause overheating of the system and damage to the powerpack.
7. When lifting the powerpack from a vehicle, we recommend the use of a crane.
8. The pressure relief valve is set at 160 bar from our plant. Never set it higher.
9. Always use filters with by-pass. The use of filters without by-pass may blow the hydraulic hoses and the filter cover.
10. Never perform service on the powerpack without disconnecting the power supply.

## Filling Up Hydraulic Oil

- To fill up with hydraulic oil, loosen the filter cover on top of the powerpack.
- Remove the filter element (see photo), and fill up with oil. When oil is showing at the bottom of the filter unit, there is enough oil on the powerpack.
- Insert the filter element again, mount the cover and the powerpack is ready for use.

*Please note: When connecting new extension hoses, it is necessary to fill up with extra 2 litres of oil. Therefore always top up the powerpack when connecting new extension hoses.*



## Technical data

The HYCON HPP18E FLEX open centre powerpack is an advanced hydraulic power source, which regulates the revolutions of the motor and thereby the oil flow supplied by means of a built in frequency converter. The powerpack therefore covers as much as three EHTMA-categories (C, D and E) with an output of 20, 30 and 40 l.p.m. respectively at 138 bar. The HYCON powerpack is fully compatible with and sufficient for the common European tools.

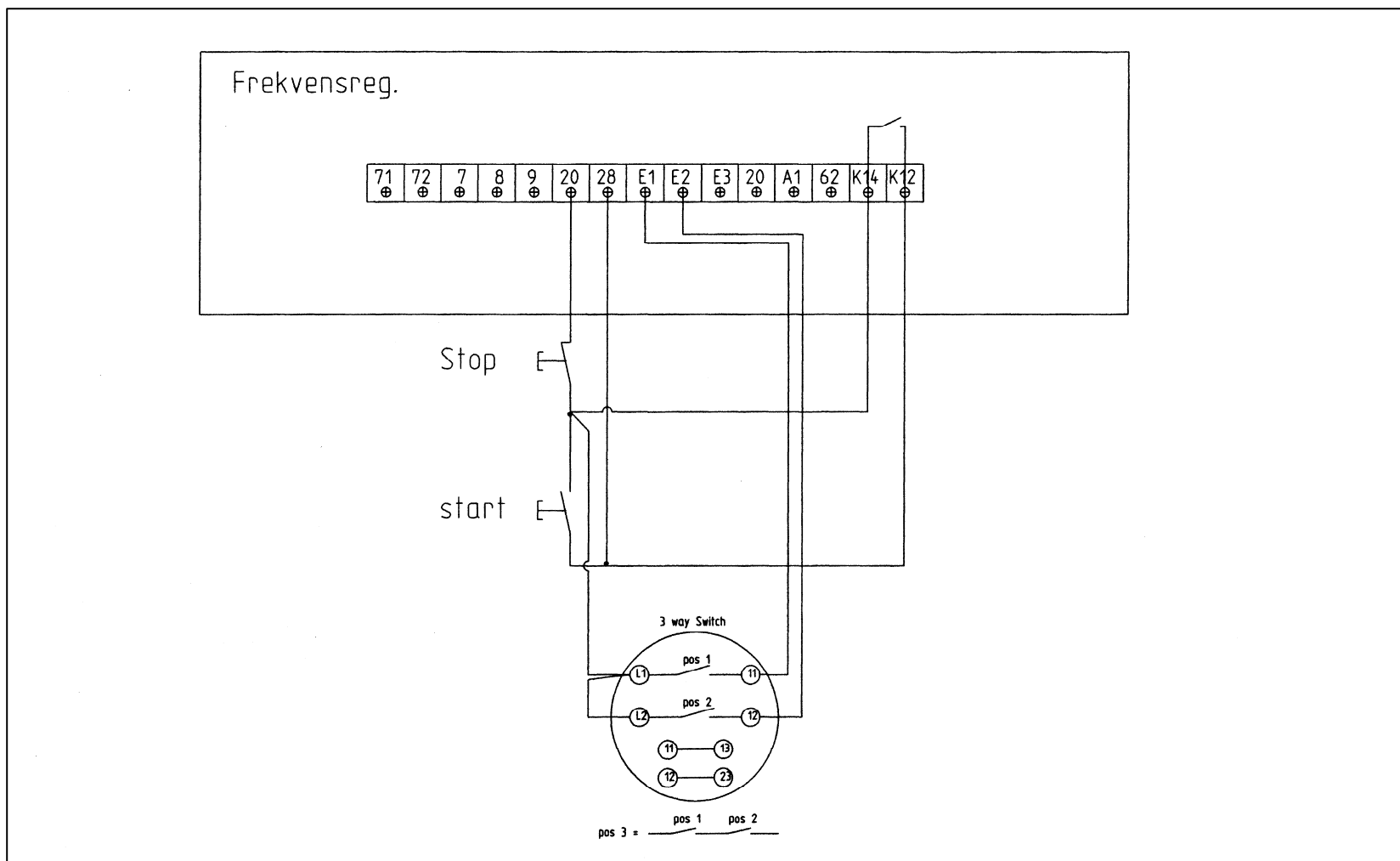
The powerpack is mounted with a pressure relief valve to avoid a too high pressure. Furthermore, the very efficient air cooling protects the powerpack against overheating.

The frequency converter incorporates a phase inverter, which always ensures correct motor rotation direction.

<b>Oil flow</b>	20, 30 or 40 l.p.m.
<b>Working pressure nominal</b>	120 bar
<b>Pressure relief valve</b>	Set at 160 bar
<b>Pump</b>	Gear pump
<b>Oil temperature</b>	Max. 70° C
<b>Tank capacity hydraulic oil</b>	Min. 8 litres/max. 11 litres
<b>Hydraulic system complete</b>	Max. 12 litres
<b>Filter system (filter element)</b>	25 Micron with by-pass
<b>Motor</b>	Electric motor 11 kW, 3x400 V
<b>Motor rotation</b>	Counterclockwise (from oil cooler fan side)
<b>Fuse min.</b>	35 Amp.
<b>Protection class</b>	IP55
<b>Guaranteed sound power level <math>L_{WA}</math></b>	98 dB
<b>Sound pressure level 1 m <math>L_{PA}</math></b>	86 dB
<b>Dimensions (LxWxH)</b>	805x625x695 mm
<b>Weight, without hydraulic oil</b>	128 kg

# Electrical Circuit Diagram

## HPP18E FLEX (11 kW) Control Circuit Frequency Converter



## Starting Instructions

Please observe the starting instructions on the electric box.

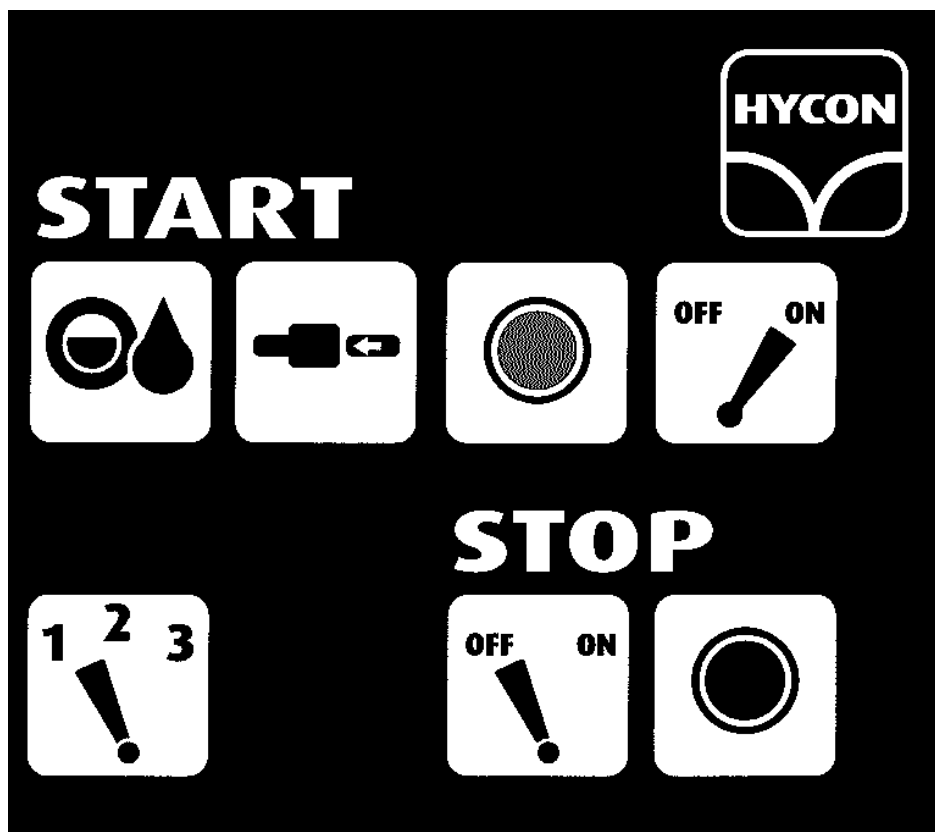
- Start:**
- Check hydraulic oil level at sight glass
  - Connect hoses and tool
  - Press the green button
  - Move the lever to "ON"

- Stop:**
- Move the lever to "OFF"
  - Press the "STOP" button

## Oil Flow

Always set the oil flow correctly in accordance with the tool connected. Choose the oil flow on the step cam switch:

- 1: 20 l.p.m.
- 2: 30 l.p.m.
- 3: 40 l.p.m.



# Service, Maintenance and Hydraulic Settings

Service/Maintenance	Daily	Weekly	Yearly
Hydraulic oil	Check		1 x replacement
Hydraulic oil filter *)			1 x replacement
Check hoses		(tighten up if needed)	

\*) use only filters with by-pass

## Hydraulic Settings

Check the working pressure by means of test equipment. The test equipment must comprise a pressure gauge, a flow meter and a valve for adjustment of pressure.

The pressure relief valve is placed on the valve block on the right side.

1. Connect the test equipment, start the powerpack and move the lever to "ON". Then close the valve on the test equipment - the pressure gauge must show 160 bar.

Adjust the pressure relief valve by loosening the lock nut and turning the adjustment screw in or out. "In" increases the pressure, and "out" decreases the pressure.

Retighten the lock nut after adjustment.

2. When the pressure relief valve has been adjusted correctly, the working pressure must be set at 100 bar by means of the valve on the test equipment. At 100 bar check that the oil flow is correct according to the technical data.

If correct pressure/oil flow cannot be achieved by following the above instructions, the powerpack must be re-adjusted. If the pressure/oil flow then still incorrect, the pump is defect and must be replaced.

## Oil Types

The HYCON powerpacks use standard hydraulic oil, i.e. all types of mineral oil and biodegradable oil, which comply with the following values:

Recommended viscosity	20-40 cSt
Permitted viscosity	15-1000 cSt
Viscosity index	Min. 100
Temperature area	-20° to +70° C

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## EC-Declaration of Conformity

We hereby declare that

**HPP18E FLEX hydraulic powerpack – from serial No. 4708**  
(with 11 kW electric motor)

is manufactured in conformity with the EC directives:  
2006/42/EC  
2000/14/EC  
2006/95/EC

**Notified body 1585:**

AkustikNet A/S  
Frederikssundsvej 179 B  
DK-2700 Brønshøj  
Denmark

Guaranteed sound power level: 98 dB

HYCON A/S  
Juelstrupparken 11  
DK-9530 Støvring  
Denmark

Henrik Steen  
General Manager

08.03.2006



## **Warranty Conditions**

We grant 12 months warranty from the first date of operation – however, not more than 18 months from the date of delivery.

The warranty applies to faults that can be related to construction and production errors.

Faults caused by incorrect operation, incorrect handling, lack of maintenance or the like will not be accepted as warranty.

The warranty covers the parts necessary for repair and the suggested average time needed for repair.

For further warranty details, please contact your local dealer.