



# Hydraulic Power Units

Product Overview

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## General Information

Hydraulic Power Unit (HPU) is a high-tech device with a self diagnosis. It is designed to supply the operating fluid under pressure to the hydraulic systems of test rigs at a given flow rate and pressure.

### Features:

- modular structure;
- low noise level;
- independent cooling and filtration circuit;
- compatible with various types of pressure and force regulators;
- water hammer alleviator;
- pressure pulsation alleviator;
- soft motor start / variable frequency drive;
- soft pressure increase;
- real time controller and control panel;
- remote control and monitoring by the Ethernet;
- operating fluid quality monitoring

### Regulator types:

<b>Pressure regulator</b>	For pressure regulation at the constant displacement (proportional or manual operation)
<b>Proportional displacement control</b>	Allows to provide pump flow regulation (system flow) by electric control signal
<b>Pressure control</b>	For regulation of pump displacement in according to the required value to sustain constant pressure
<b>Power regulator</b>	combines the functions of pressure control and limiting the input power taken by the pump; Proportional pump volume and pressure controller allows to control the pump flow and pressure by means of an electric control signal

Urtu Systems supplies pumping units of 2.2, 5.5, 15, 37, 75, 90 kW  
**Pumping complexes up to 1.6 MW are available for development**

## Hydraulic Power Unit 2,2 KW



### Specification

Parameter	Value
Working fluid	Mineral and synthetic oils, Skydrol
Working fluid viscosity, cSt	5...100
Working pressure <sup>1</sup> , bar Flow rate, l/min	250 4,3
Working pressure <sup>1</sup> , bar Flow rate, l/min	350 3
Variable working pressure <sup>2</sup> , bar Flow rate, l/min	250...350 3...4,3
Rated filter fineness, µm	10
Ambient temperature, °C	+15...+40
Maximum permissible working fluid temperature, °C	85

<sup>1</sup> fixed speed pump

<sup>2</sup> when ordering with regulator

## Hydraulic Power Unit 5,5 KW



### Specification

Parameter	Value
Working fluid	Mineral and synthetic oils, Skydrol
Working fluid viscosity, cSt	5...100
Working pressure <sup>1</sup> , bar Flow rate, l/min	250 10,8
Working pressure <sup>1</sup> , bar Flow rate, l/min	350 7,7
Variable working pressure <sup>2</sup> , bar Flow rate, l/min	250...350 7,7...10,8
Rated filter fineness, µm	10
Ambient temperature, °C	+15...+40
Maximum permissible working fluid temperature, °C	85

<sup>1</sup> fixed speed pump

<sup>2</sup> when ordering with regulator

## Hydraulic Power Unit 15 KW



### Specification

Parameter	Value
Working fluid	Mineral and synthetic oils, Skydrol
Working fluid viscosity, cSt	5...100
Working pressure <sup>1</sup> , bar Flow rate, l/min	250 29,6
Working pressure <sup>1</sup> , bar Flow rate, l/min	350 18,5
Variable working pressure <sup>2</sup> , bar Flow rate, l/min	250...350 19,4...29,6
Rated filter fineness, $\mu\text{m}$	10
Ambient temperature, $^{\circ}\text{C}$	+15...+40
Maximum permissible working fluid temperature, $^{\circ}\text{C}$	85

<sup>1</sup> fixed speed pump

<sup>2</sup> when ordering with regulator

## Hydraulic Power Unit 37 KW



### Specification

Parameter	Value
Working fluid	Mineral and synthetic oils, Skydrol
Working fluid viscosity, cSt	5...100
Working pressure <sup>1</sup> , bar Flow rate, l/min	250 69
Working pressure <sup>1</sup> , bar Flow rate, l/min	350 48
Variable working pressure <sup>2</sup> , bar Flow rate, l/min	250...350 48...69
Rated filter fineness, µm	10
Ambient temperature, °C	+15...+40
Maximum permissible working fluid temperature, °C	85

<sup>1</sup> fixed speed pump

<sup>2</sup> when ordering with regulator

## Modular Hydraulic Power Unit 45/90 KW



### Specification

Parameter	Value
Working fluid	Mineral and synthetic oils, Skydrol
Working fluid viscosity, cSt	5...100
Working pressure <sup>1</sup> , bar	250
Flow rate, l/min	87
Working pressure <sup>1</sup> , bar	350
Flow rate, l/min	59
Variable working pressure <sup>2</sup> , bar	250...350
Flow rate, l/min	59...87
High pressure circuit, bar	500
Rated filter fineness, µm	10
Ambient temperature, °C	+15...+40
Maximum permissible working fluid temperature, °C	85

<sup>1</sup> fixed speed pump

<sup>2</sup> when ordering with regulator



## Hydraulic Power Unit 75 KW



### Specification

Parameter	Value
Working fluid	Mineral and synthetic oils, Skydrol
Working fluid viscosity, cSt	5...100
Working pressure <sup>1</sup> , bar	250
Flow rate, l/min	136
Working pressure <sup>1</sup> , bar	350
Flow rate, l/min	94
Variable working pressure <sup>2</sup> , bar	250...350
Flow rate, l/min	94...136
Rated filter fineness, µm	10
Ambient temperature, °C	+15...+40
Maximum permissible working fluid temperature, °C	85

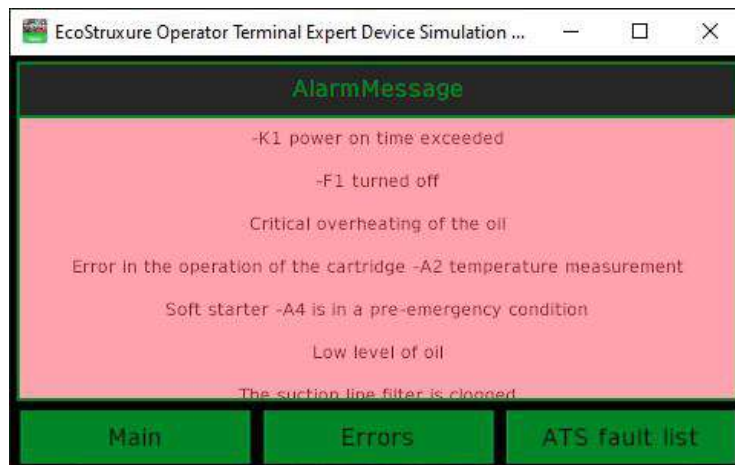
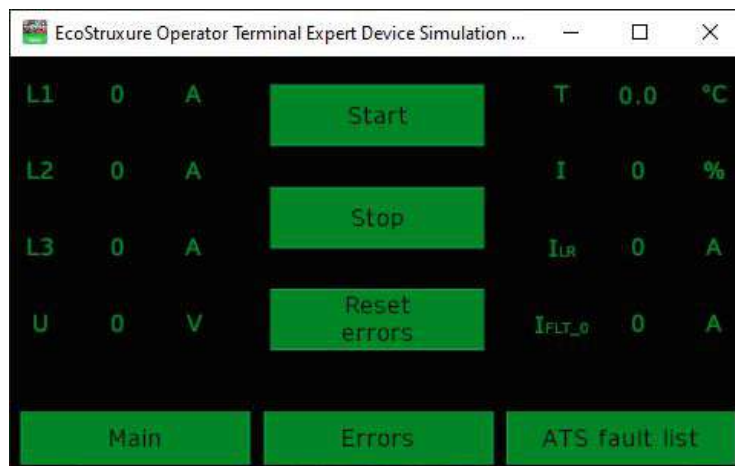
<sup>1</sup> fixed speed pump

<sup>2</sup> when ordering with regulator

## Software

Pumping station control, alarm reporting and monitoring is carried out according to industrial Ethernet standards. The man-machine interface can comprise: operator panel, personal computer, remote operator workstation or manual controls and light alarms.

1. Set of functions for monitoring the performance of the unit:
2. Running hours counter, adjustable for the complex load.
3. Reverse counters for system maintenance.
4. Pump station protection from:
  - overheating of operating fluid;
  - overheating of electric motors;
  - phase displacement;
  - low operating-fluid level;
  - high operating-fluid level;
  - pressure surges;
  - contamination of filters.
5. Monitoring the quality (degradation) of the operating fluid.





+ 41 21 552 12 64



[info@urartu.com](mailto:info@urartu.com)



[www.urartu.com](http://www.urartu.com)