

DeZURIK HPU-DHS HYDRASTORM HYDRAULIC POWER UNIT

Design and Construction

DeZURIK's HydraStorm Hydraulic Power Unit (HPU-DHS) generates a tremendous amount of power to drive most valves fitted with hydraulic cylinder actuators. The HPU-DHS is designed specifically with rugged construction and diverse capabilities to best suit the needs of tough indoor/outdoor industrial applications in numerous industries including mining, power, hydropower, water, wastewater, and others.

HPU-DHS Hydraulic Power Units are available in a variety of AC and DC voltages, three reservoir sizes, flow rates up to 24 gpm (90 l/min), pressures up to 3000 psi (20,684 kPa), and an operating temperature range from -49 to 140°F (-45 to 60°C).

The HPU-DHS system is compact, portable, quiet and fully enclosed with IP66 protection (dust tight, water jet protected). Offered with intuitive operator controls and capable of operating a number of valve actuators, the HPU-DHS is both user friendly and easy to maintain.

Application

The HPU-DHS is used in applications that would encounter power failures and extreme environmental conditions, where higher speeds & controlled valve actuation is critical. Due to their high power density, & lower power usage, hydraulics are often the chosen method for valve actuation in challenging applications.

Base Frame

HPU-DHS Hydraulic Power Units enclosure includes an ergonomically designed base frame positions the control panel at a 48" operator height. The operator interface, with large buttons and switches, allow for gloved operation. Lifting eyes are incorporated into the frame for easy lifting and footpads on the legs are pre-drilled to allow the unit to be secured



to a surface. The entire structure and reservoir are coated for protection.

Operation and Maintenance

Controls for Valve Open, Valve Close, Light On/Off, and Heat Cycle On/Off are included on the face of the control panel. Temperature of the oil and ambient air temperature are monitored, and help with the heat cycle for efficient operation. The warning indicator lamp blinks to indicate; Dirty Filter, High Temperature, and Service Interval. Area lighting is provided by two durable frame mounted

LED's. Power connection is standardized. Main power disconnect is lockable. The entire assembly is designed for ease of maintenance. The unit is easily disassembled for cleaning and maintenance. All key components are accessible and replaceable.

Controls

Variable Pressure & Speed Control

The variable pressure and speed controls allow the user to adjust force control and valve speed of operation. For example, if the cylinder requires 1700 psi to operate, the user simply sets the pressure control to 1800 psi (100 psi above the required pressure but below the maximum cylinder pressure) and adjusts the speed control. The infinitely variable speed motor allows the user to adjust the pump outlet flow for desired valve speed of actuation. The motor controller is solid state and uses a self-contained, oil cooled, frequency drive which optimizes the energy use required by the motor and reduces heat generation caused by wasted horsepower.

HPU-DHS Hydraulic Power Units can be configured with optional hand pumps, accumulators, or battery backup for valve operation in the event of a power failure. Lead/lag pump motor groups are also available.

Control Interface

The HPU-DHS can interface with the plant control system or operate as a stand-alone unit. Controls fit within the custom housing which simplifies the system control and wiring, all of which is sealed within a protective housing rated to IP66 (dust tight, water jet protected). The HPU-DHS

can track system pressures, temperatures, valve actuation, and the number of operations completed. Data elements are stored for retrieval later for maintenance purposes.

Operates Two Valves with Minimal Control Equipment

With a motor that reverses, two pump ports can either open, or close the valve. Then using simple manifold selector circuitry, the operator selects Valve 1 or Valve 2 to operate. The integrated manifold bolts directly on top of the pump unit, minimizing plumbing.

Technical Specifications

24 or 48 Volt DC Models

Up to 4.5 GPM at 3000 psi, 24 vDC 225 Amps / 48 vDC 112 Amps

115 Volt AC Models

Up to 4.5 GPM at 3000 psi, 115 vAC 15 Amps

230/460 VAC Models

Up to 24 GPM & 3000 psi, 230/460 Up to 126 Amps

Approximate Dry Weight: 560 pounds (255 kg)

Operating Temperature: -49° to 140°F
(-45° to 60°C)

Hydraulic fluid reservoir sizes: 15, 35 or 60 gallon

Sealed protective housing: IP66 rated (dust tight, water jet protected).

Sales and Service

For information about our worldwide locations, approvals, certifications and local representative:

Web Site: www.dezurik.com **E-Mail:** info@dezurik.com



250 Riverside Ave. N. Sartell, Minnesota 56377 • Phone: 320-259-2000 • Fax: 320-259-2227

DeZURIK, Inc. reserves the right to incorporate our latest design and material changes without notice or obligation. Design features, materials of construction and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing by DeZURIK, Inc. Certified drawings are available upon request.