

# Packaged Pumping Systems for Pressure Boosting and HVAC

## GRUNDFOS **HYDRO MPC**

The Grundfos Hydro MPC is an integrated packaged pumping system that offers an easier, less costly and more efficient alternative to field-built systems in both pressure boosting and HVAC applications. Pre-piped, pre-wired and pre-tested, this system includes pumps, motors, controls, VFDs and more for easier installation and commissioning, and unrivaled performance.

Using intelligent controls and smaller pumps, the Hydro MPC harnesses the power of parallel pumping for greater flexibility, scalability and efficiency in ever-changing load conditions. This reduces energy consumption by more than 18% compared to other VFD HVAC and pressure boosting systems, providing substantial cost savings in the long run.



### KEY FEATURES AND BENEFITS

- **Single source supplier** for every component of the Hydro MPC, so Grundfos is your only contact for service
- **Modular design options** for cost-effective packaged solutions with a smaller footprint than traditional pumping systems
- **CR/CRE pumps** have extremely low inertia, meaning minimal vibration and do not require alignment
- **Advanced permanent magnet motor** offers an additional 7–10% decrease in energy cost over NEMA Premium motors with conventional VFDs (available up to 15 hp)
- **Efficiency based sequencing**, CU 352 controller runs up to 6 pumps by intelligently monitoring power and pressure
- **SCADA via CIM expansion card** that plugs in to the CU 352 for easy BMS integration, via a variety of protocols with BACnet as standard, and utilizes single poll functionality that pings device once for over 30 communication points of data and control
- **Built-in logging capability** for easy trouble-shooting & energy analysis
- **Secondary (fallback) sensors** allows for system control if remote sensor fails
- **Innovative cartridge mechanical seal** can be replaced in minutes for easier maintenance and reduced downtime
- **One housekeeping pad and no grouting**, for easier and more cost-effective installation; fits on existing housekeeping pads for retrofits
- **No suction diffusers**, triple duty valves or alignment necessary

### PRESSURE BOOSTING APPLICATIONS

- **Low flow stop control** that exceeds ASHRAE 90.1 energy code for service water boosters

- **Certifications/approvals include** System NSF 61/372 Certified and seismic certification by OSHPD (OSP-0491-10) specifically for Hydro MPC E (CUE) systems
- **316 stainless steel manifolds** are engineered to streamline flow, reduce pressure loss and protect against corrosion

### HVAC APPLICATIONS

- **Multizone control** regulates up to 6 HVAC zones within a defined differential-pressure band
- **Dedicated HVAC control (optional)** using Control HVAC that can control up to 26 zones and includes chiller bypass control
- **Additional sensors (optional)** enable top zone control

### APPLICATIONS

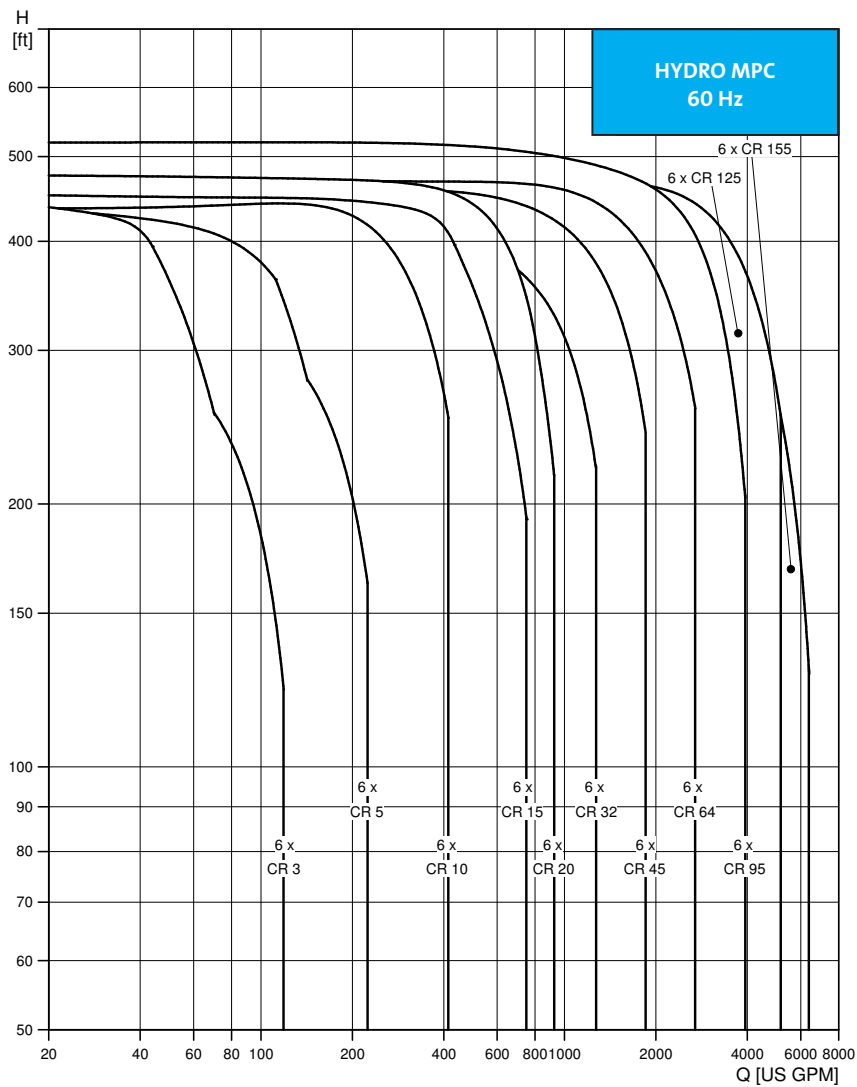
- Hydronic Heating and Cooling
  - Variable Primary
  - Primary/Secondary
  - Condenser Water
  - Distributed Pumping
  - District Energy Systems
- Industrial Process Temperature Control
- Pressure Boosting
- Irrigation

## TECHNICAL DATA

| HYDRO MPC INFORMATION       |   |
|-----------------------------|---|
| <b>FLOW, Q (2–6 PUMPS):</b> | max. 6,000 gpm (1,363 m <sup>3</sup> /h)  |
| <b>HEAD, H:</b>             | max. 1,000 ft (305 m)   |
| <b>WORKING PRESSURE:</b>    | max. 400 psi (27.6 bar)   |
| <b>LIQUID TEMPERATURE:</b>  | 32°F to 180°F (0°C to 82°C) <sup>†</sup>  |
| <b>APPROVALS:</b>           | <ul style="list-style-type: none"> <li>• System NSF 61/372 Certified</li> <li>• OSHPD—Seismic Certification (OSP-0491-10)</li> <li>• UL Listed Packaged Pumping System</li> </ul> |

<sup>†</sup> Higher temperatures available on request.

## PERFORMANCE DATA



Visit [grundfos.us/pei](http://grundfos.us/pei) to learn more about Department of Energy (DOE) pump energy index (PEI) requirements and PEI ratings on specific Grundfos models.