



## **Centrifugal Pumps – Understanding Their Applications & Operations**

MWWA Course: MWWA 21-004, Wastewater: BC-2021-3620

Centrifugal pumps are the most widely used type of pump in the water industry. While a seemingly simple device of a rotating impeller to move water, centrifugal pumps have developed into a wide range of complex configurations with amazing, automated control capabilities. This course will review the various centrifugal pump designs, their applications and critical maintenance issues. Important information about understanding pump performance curves and how they can be used to troubleshoot hydraulic performance will also be presented.

This half day course is a *must* for all new operators – both distribution and treatment. It will also serve as a valuable refresher for experienced operators.

### **Learning Objectives:**

- Learn about the different types and applications of centrifugal pumps.
- Review pump performance curves and how to apply the information in various applications.
- Discuss important operation and maintenance issues.

This course is approved for **2.0 TCHs** (Training Contact Hours) for Massachusetts Water & Wastewater Operators. It will be taught using the Zoom platform. Participants will need to have a reliable highspeed internet connection and computer device with both video and audio capability. Please review our Student Expectations for Attending Virtual Training at [www.masswaterworks.org/education](http://www.masswaterworks.org/education).

**LOCATION:** Remote Training via Zoom  
**DATE:** Thursday, February 22, 2024  
**TIME:** 8:30 – 11:30 a.m.  
**COST:** \$50 Members; \$90 Nonmembers

**INSTRUCTOR:** Robert Jordan, Hayes Pump Inc.

<b>AGENDA</b>	8:30 – 8:45 AM	<b>Course Overview &amp; Introductions</b>
	8:45 – 9:15 AM	<b>Different Types of Pumps &amp; Their Applications</b>
	9:30 – 10:15 AM	<b>Understanding Pump Design and Pump Curves</b>
	10:15 – 10:30 AM	<b>Break</b>
	10:30 – 11:00 AM	<b>Pump Troubleshooting and Common O &amp; M Issues</b>
	11:00 – 11:30 AM	<b>Q &amp; A, Conclusions &amp; Course Evaluations</b>

**Registrations must be done on-line ([www.masswaterworks.org](http://www.masswaterworks.org)).** If you need registration assistance, please email [adminmwwa@masswaterworks.org](mailto:adminmwwa@masswaterworks.org) or call 978-263-1388.

**ATTENDANCE & TCH POLICY:** Participation of the attendees will be confirmed throughout the Zoom session. Participation and completion of an online evaluation form are necessary to be eligible for TCHs. TCHs will be issued only when full payment is received.