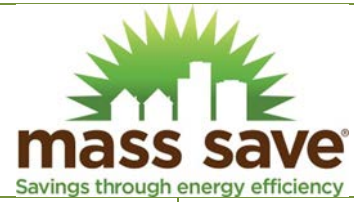


Massachusetts Technology Assessment Committee
(MTAC)



Air Operated Double Diaphragm(AODD) Pump Control

Date reviewed: 11/03/2014

| Description of Technology | | Energy Saving Opportunity | |
|---|---|---|---|
| <p>An AODD pump is a positive displacement pump that uses a combination of the reciprocating action of a rubber, thermoplastic, and valves on either side of the diaphragm to a pump a fluid. This pump control utilize an unique Air Control Spool that automatically restricts the amount of air going into the pump during the latter part of each stroke, which eliminates over-filling of the air chamber and results in reduced energy consumption.</p> | Sector(s): | <input checked="" type="checkbox"/> Residential | <input checked="" type="checkbox"/> Commercial & Industrial |
| | Applicability Criteria: | Industry with heavy pump use | |
| | Efficiency Improvement: | electricity saving | |
| | Energy (%) Savings Potential: | Up to 60% | |
| | Demand (%) Reduction Potential: | Not Applicable | |
| | Strengths | Weakness | |
| <ul style="list-style-type: none"> • An air control spool automatically meters the air to prevent overfilling with no reduction of product yield • Easy maintenance and easy to install • No additional electricity is required to install this control • Easy to retrofit | <ul style="list-style-type: none"> • Niche market and limited market potential | | |
| Third Party Analysis/ Previous MTAC Reviews | Suppliers Known to MTAC | MTAC Status | |
| <p>MTAC is currently developing a bench test to further prove the concept in upstate NY</p> | <p>Pro-Flo Shift</p> <p>Yamada pump</p> <p>Warren Rupp, Inc.</p> | <p>Acknowledged to have energy savings potential and referred to individual PA for their own EE program consideration</p> | |
| Market Development Issues | | | |
| Cost: | 50% less expensive than an electronically actuated ADS | | |
| Market Risk and Barriers: | Niche market base | | |
| Time to Market: | Currently on market | | |
| Simple Pay-back: (Years) | Variable | | |