

**Modulating Gas Valve Kit for Commercial Gas Dryers**

Date reviewed: 08/20/2020

Description of Technology		Energy Saving Opportunity		
<p>A two-stage modulating gas valve retrofit kit for commercial non-modulating gas dryers. Commercial gas clothes dryers found in coin-operated laundromats or on-premise laundromats (hospitals, hotels, health clubs, etc.) traditionally have a single firing rate which is sized properly for highest heat required in initial drying stages but is oversized for later drying stages requiring lesser heat. This causes the burner to cycle on/off frequently, resulting in less efficient drying and wasted gas.</p>		Sector(s):	Residential	
		<input checked="" type="checkbox"/>	Commercial & Industrial	
		Applicability Criteria:	A 30 to 250-pound capacity commercial gas dryer with no modulating capabilities	
		Efficiency Improvement:	Est. 0.18 therms/cycle	
		Energy (%) Savings Potential:	Highly variable	
		Demand (%) Reduction Potential:	Highly variable	
Strengths		Weakness		
<ul style="list-style-type: none"> <li>Replacing the single stage gas valve with a two-stage gas valve allows the firing rate to adjust to the changing heat demand, thereby reducing overall gas consumption.</li> <li>Average savings greater than 330 therms annually, offering a 2-3-year payback before incentives</li> </ul>		<ul style="list-style-type: none"> <li>Measure savings should be verified</li> <li>Savings vary with dryer size and annual cycles per IL TRM i.e.                             <ul style="list-style-type: none"> <li>Coin- Operated Laundromats Est. 1483 Cycles, 267 Annual Therm savings</li> <li>Multi-family Dryers Est. 1074 Cycles, 193 Annual Therm savings</li> <li>On-Premise Laundromats Est. 3,607 Cycles, 649 Annual Therm savings</li> </ul> </li> </ul>		
Third Party Analysis/ Previous MTAC Reviews		Suppliers Known to MTAC	MTAC Status	
<p>Zhang, Yanda, and Julianna Wei. Commercial Clothes Dryers, CASE Initiative for PY2013: Title 20 Standards Development. California Public Utilities Commission, 2013</p> <p>Illinois TRM v.8.0</p>		<p>Biotherm - EZ Efficiency</p>	<p>Acknowledged to have energy savings potential and referred to individual PA for their own EE program consideration</p>	
Market Development Issues				
Cost:	Est. \$700			
Market Risk and Barriers:	Currently on market			
Time to Market:	Currently on market			
Simple Pay-back: (Years)	2 - 3 depending on dryer size and annual cycles			

