

Michigan Steam Equipment

Steam System Energy Optimization Guide



Cost of Steam Leaks – Dollar/Year @ 100psig

| Orifice Diameter | *Lbs/Yr Loss | **\$10/1000Lbs | **\$12/1000Lbs |
|--|--|--------------------------------------|--|
| 1/16" | 95,139 | \$951.00 | \$1,141.00 |
| 1/8" | 380,557 | \$3,805.00 | \$4,566.00 |
| 1/4" | 1,522,229 | \$15,222.00 | \$18,270.00 |
| 1/2" | 6,088,918 | \$60,889.00 | \$73,068.91 |
| Cost multiplier for other Steam pressures | 15psig - .26 200psig – 1.87 | 50psig-.56 300psig – 2.74 | 150psig – 1.43 600psig – 5.35 |

*Continuous operation using Napier's formula: $PPH=24.24 \times Pabs \times D^2$

**Cost to create 1000 lb of steam

To schedule a free steam/condensate system evaluation please contact your local Michigan Steam representative. Our evaluation will determine a starting point to ensure a cost reduction to your overall bottom line.



Spirax Sarco Energy Services Group focuses on customers' specific needs, bringing added value through Surveying, Assessing, Quantifying, and in some cases, managing our customers steam system. Services costs are shadowed by savings opportunities found within facilities, especially when working closely with customers on implementing proper solutions, bringing to fruition with paybacks in a matter of months.

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To learn more about energy saving opportunities such as condensate return, boiler blowdown heat recovery, and steam system optimization please contact Michigan Steam Equipment.

A properly engineered, maintained, and operated steam system is the most efficient way to transfer heat. A facility with no active steam trap testing program will have a 40% trap failure rate, on average. The chart on the left indicates the cost of one failed steam trap per year. It is recommended to start with a professional steam trap survey to provide accurate usable results.