

MiniMate[®] Deaerator

Small-Scale Deaeration

The Cleaver-Brooks MiniMate is designed to efficiently remove oxygen from boiler feedwater, this competitively priced deaerator meets the needs of small-to-medium-sized steam operations.

Compact, Vertical Design

- » Optimized for small-scale steam and high-makeup water applications (such as humidification, sterilization or distillation).
- » Fits seamlessly into limited spaces and steam skid packages

Enhanced Boiler Systems

- » Reduces boiler feedwater dissolved oxygen levels to virtually zero
- » Improves boiler and system longevity and reliability

User-Friendly

- » Features mechanical design for simplified installation, startup, operation and maintenance

Durable

- » Utilizes 304L stainless steel pressure vessel to resist corrosion for best-in-class product warranties



Return on Investment

Pressurized Boiler Feedwater Deaerator System vs. Atmospheric Boiler Feedwater System								
Load (BHP)		50	75	100	125	150	200	250
Load (MBH)		1,674	2,511	3,348	4,184	5,021	6,695	8,369
Return on Investment (Years Until DA Paid For)								
Steam Utilization	100%	5.20	3.84	3.04	2.57	2.23	1.80	1.52
	75%	6.93	5.12	4.06	3.42	2.97	2.40	2.03
	50%	10.40	7.69	6.08	5.14	4.46	3.59	3.04
	25%	20.79	15.37	12.17	10.27	8.92	7.19	6.08
	10%	51.98	38.43	30.42	25.68	22.30	17.97	15.20

*Actual ROI results vary based on equipment options, fuel pricing, water quality, and oxygen scavenger pricing.



Steam Skid with MiniMate.

Benefits of MiniMate Combined in a Steam Skid

- » Up to 98% cost reduction of oxygen scavenger
- » Mitigate corrosion to carbon steel piping and pressure vessels
- » Improves steam quality to optimize performance
- » BMS integration with built-in BACnet MS/TP support

Top Applications for the MiniMate...Best Fit

Reduces Service and Maintenance

- » Sterilization
- » Laundry & Dry Cleaning
- » Humidification
- » Breweries & Distilleries
- » Pharmaceutical



To learn more about the MiniMate, visit cleaverbrooks.com/deerators/minimate