

Eco-Clamp™ is a passive, externally installed fuel-conditioning device that improves combustion efficiency in gas-fired and liquid-fuel systems. Clamped directly onto the fuel line, Eco-Clamp™ improves fuel delivery conditions entering the burner — reducing fuel consumption, improving system performance, and delivering measurable emissions reductions.

Ideal for boilers, HVAC, and industrial systems, Eco-Clamp™ installs with no system modification, no downtime, and no integration with controls — delivering long-term performance gains backed by field-proven, data-verified results.

Key Value Drivers

FINANCIAL IMPACT

5–17% reduction in fuel consumption (up to 20% under favourable conditions), with typical ROI of 6–18 months. No capital-intensive upgrades required — immediate operating-cost reduction from day one.

OPERATIONAL BENEFITS

Improved combustion stability, reduced carbon fouling and burner buildup, lower maintenance frequency, and extended equipment lifespan.

ESG & SUSTAINABILITY

Direct Scope 1 emissions reduction and improved energy intensity per unit of production. Supports corporate sustainability targets with measurable, verifiable performance.

How It Works

Eco-Clamp™ applies a controlled magnetic field to the fuel line upstream of combustion. This clean, physical process happens instantly and continuously — no additives, no power, and no calibration required.

1

More consistent fuel flow

Reduced micro-turbulence entering the burner.

2

Improved air-fuel mixing

Leading to more complete, efficient combustion.

3

More usable energy per unit of fuel

More complete combustion means more heat output from less fuel required.

Proven Performance

5-17%

Reduction in overall fuel consumption (up to 20%)

60-80%

Reduction in CO & unburned hydrocarbons

6-18

Months to return on investment, depending on usage

Field-verified: an independent third-party performance report on a 222-suite multi-residential building recorded a 16.78% temperature-normalized reduction in natural gas use after Eco-Clamp™ installation, measured by regression analysis against the pre-install baseline. Eco-Clamp™ is now deployed across multiple multi-residential properties.

Lab-verified: independent testing by ONSpex Laboratories (Cleveland, OH) per ASHRAE 103-1993 on a 90% up-flow furnace recorded combustion efficiency rising from 89.55% to 90.97% and complete elimination of CO emissions (8 ppm to 0 ppm) with Eco-Clamp™ installed.

Implementation & Risk Profile

Simple, Non-Invasive Installation

- Installed externally on existing fuel lines — no system modification or integration with controls required.
- Zero downtime: installation completed without disrupting operations (10-15 minutes per clamp). Optional insulation wrap available for high-temperature environments.
- Fully reversible: no permanent changes to existing infrastructure, and installation can be undone at any time.

Low-Risk Profile

- No interference with existing systems, no pressure drop, flow restriction, or change to fuel chemistry.
- No moving parts or maintenance — passive magnetic design with a long, uninterrupted service life (20-year warranty).
- No power or calibration required — works continuously from installation day with zero ongoing configuration.

For installation procedures, model selection, and full technical specifications, see the Eco-Clamp™ Installation Guide and Technical Specifications documents. Magna-Tek Solutions Inc. · info@magna-tek.com · www.magna-tek.com