



MLM<sup>®</sup>/MULTI-LAYER MEDIA<sup>®</sup>



Data  
Comparison  
Section

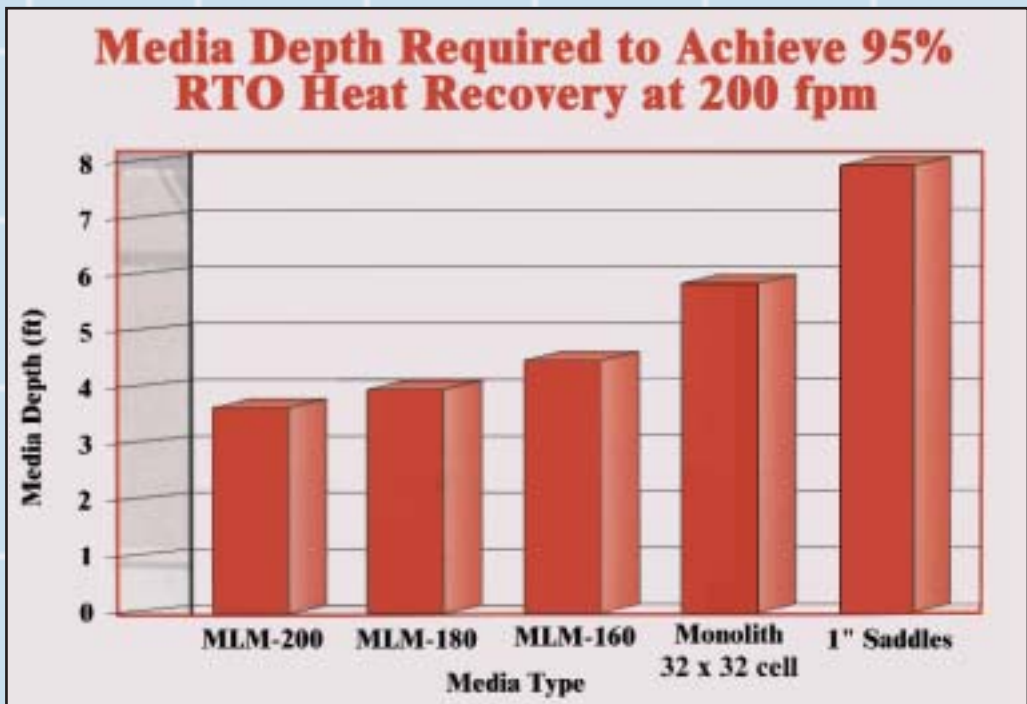
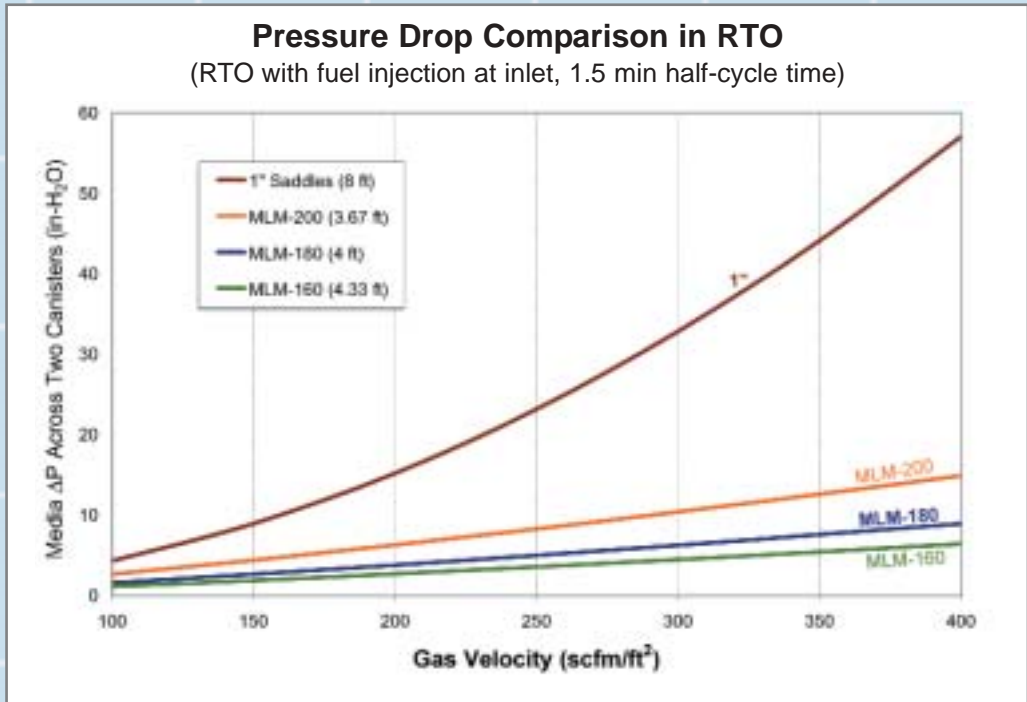


Two year thermal stress warranty  
standard with all RTO designs.

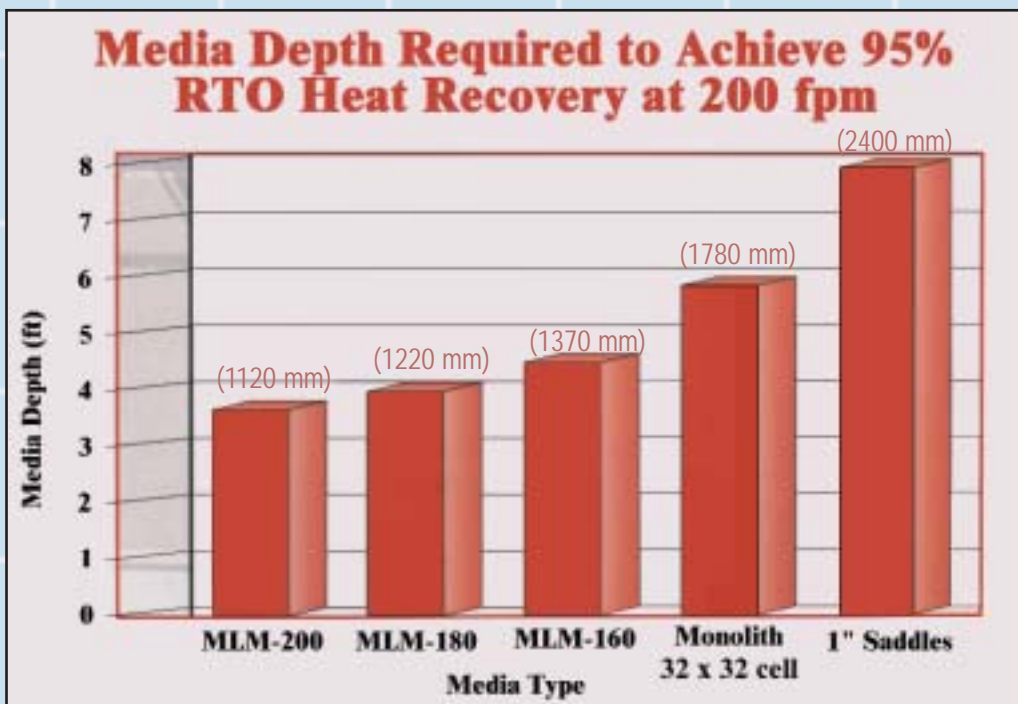
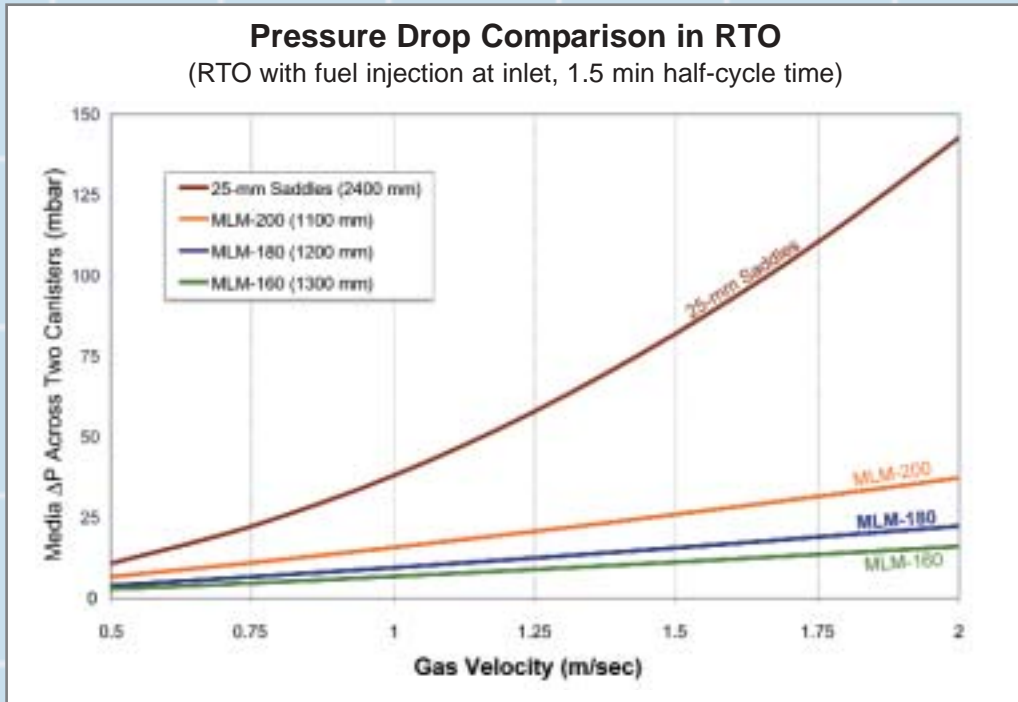
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# Lantec MLM<sup>®</sup> $\Delta P$ & Thermal Efficiency



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## MLM<sup>®</sup> improves RTO designs over using Saddles. A Typical RTO Design Example:



### Design Basis:

Air Flow = 31,700 scfm (50,000 Nm<sup>3</sup>/hr)  
Inlet Air Temp. = 68 °F (20 °C)  
Combustion Temp. = 1500 °F (816 °C)  
Half Cycle Time = 1.5 min  
Burner Air / Inlet Air = 0.01  
Thermal Efficiency Required = 95%

### Recommended Design:

Heat Recovery Media: MLM-180<sup>®</sup>  
Canister Size: 10'x10' (3048 x 3048 mm)  
Design Gas Velocity: 317 fpm (1.61 m/s)  
Media Depth: 4.67' (1423 mm)  
Volume of media: 467 ft<sup>3</sup> (13 m<sup>3</sup>)  
 $\Delta P$  across Two Beds: 7.7 in WC (19 mbar)

**Compare with:** 1" (25 mm) Saddles  
Canister Size: 10'x15' (3048 x 4572 mm)  
Design Gas Velocity: 211 fpm (1.07 m/s)  
Media Depth: 9' (2743 mm)  
Volume of media: 1,350 ft<sup>3</sup> (38 m<sup>3</sup>)  
 $\Delta P$  across Two Beds: 19 in WC (47 mbar)

### The MLM<sup>®</sup> Advantage

#### Smaller RTO Unit

Much lower fabrication costs.

#### Smaller Footprint

Greatly reduced space required.

#### Lower Pressure Drop

The 11.3 inch (28 mbar) WC reduction in this example leads to \$48,000+ per year\* in electric power cost savings, a very high financial return!

#### Lower Maintenance Cost

MLM is extremely resistant to fouling.  
MLM endures severe thermal stresses.

**Two year thermal stress warranty standard with all RTO designs.**

\* Power cost savings estimated based upon data published by the Electric Power Research Institute, Palo Alto, CA. Assumes 80% efficient motors, 8000 hour operating year and a power cost of \$0.09 per kWh.