

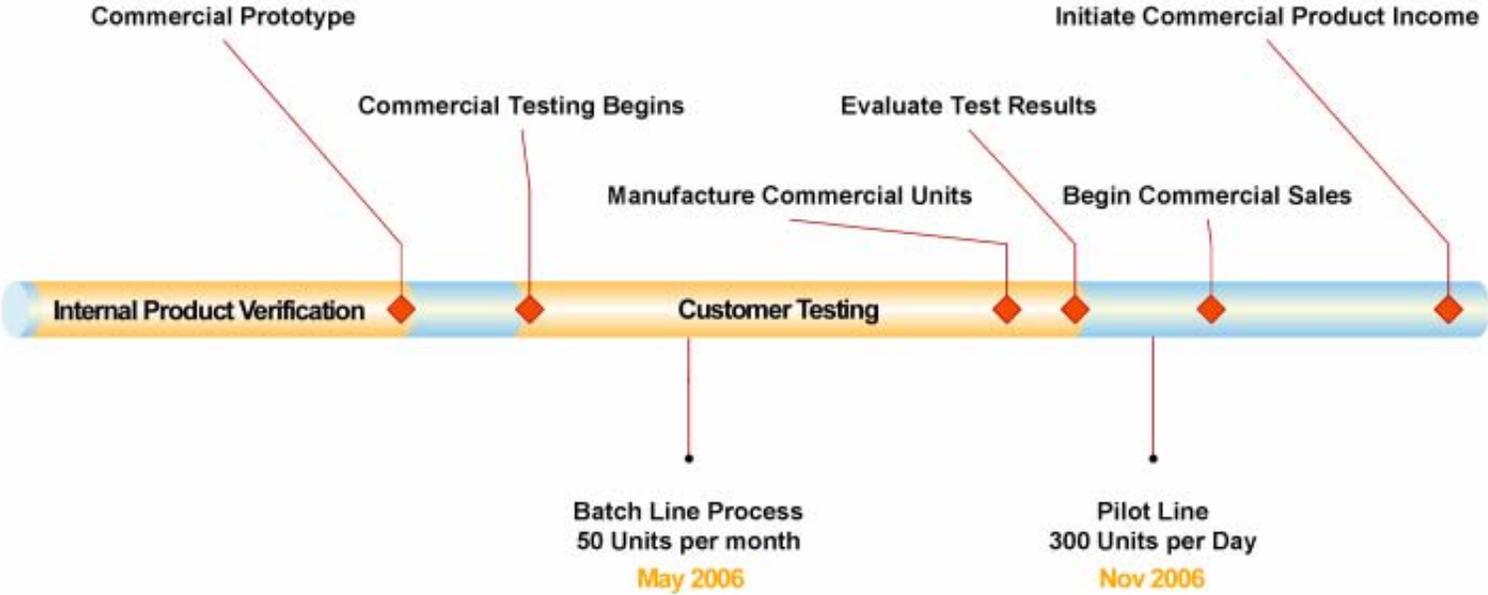
# Pleated Ceramic Fiber Diesel Particulate Filter

Industrial Ceramic Solutions, LLC

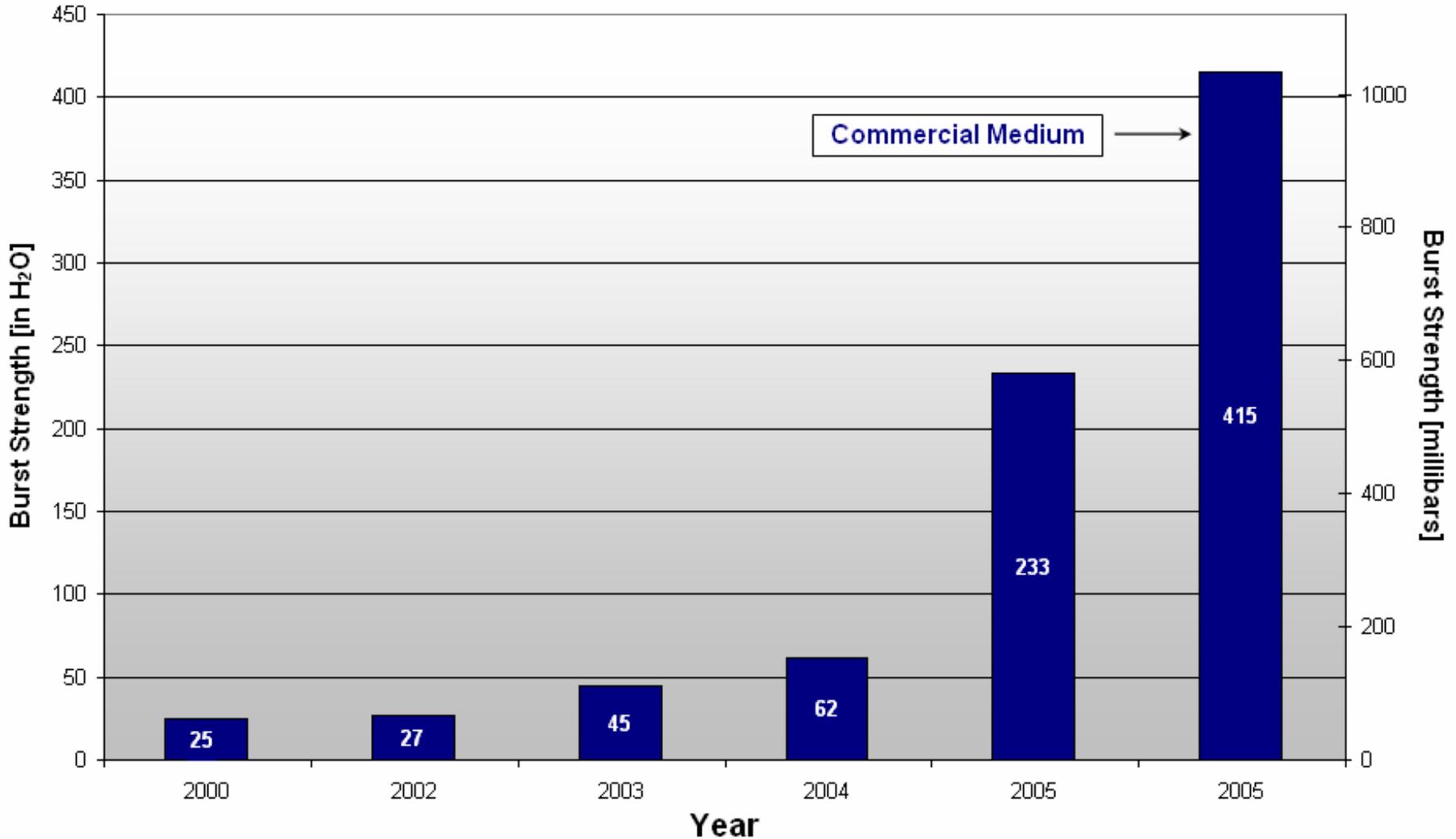
# High-Volume Production Plan

Joint Development Agreement with  
Worldwide Automotive Supplier to  
Manufacture and Market the DPF  
Cartridges

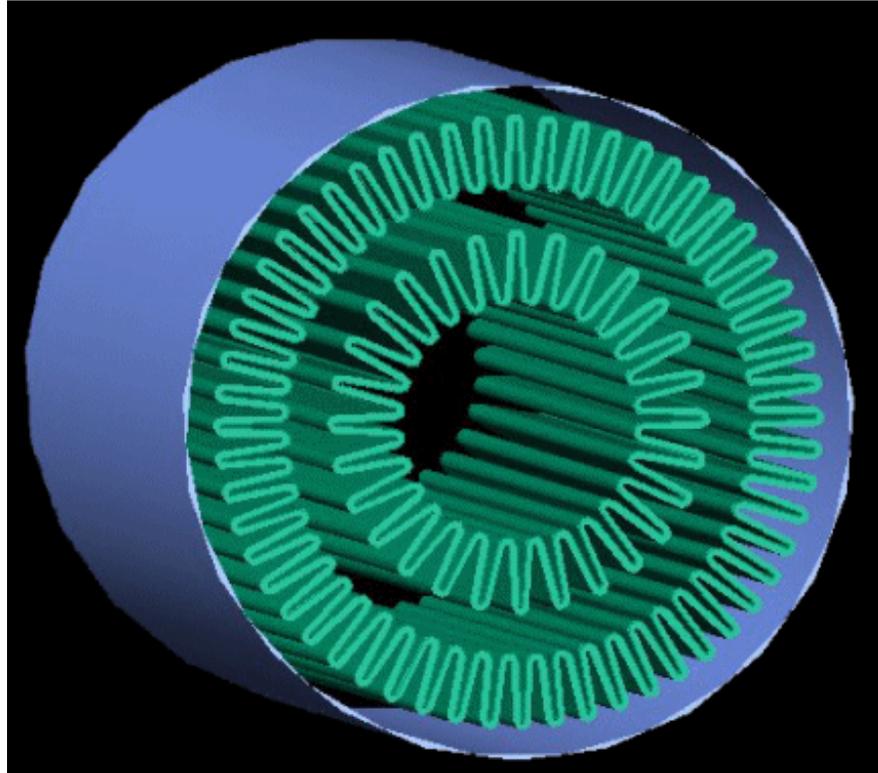
# DPF Production Acceleration Program



# Progress Toward Commercialization: Durability/Strength Improvement - ICS Thermapore™ Filtration Media



# Round Pleated Filter: Commercial Design Concept



# Round Pleated Filter Designed for Standard Canning Process

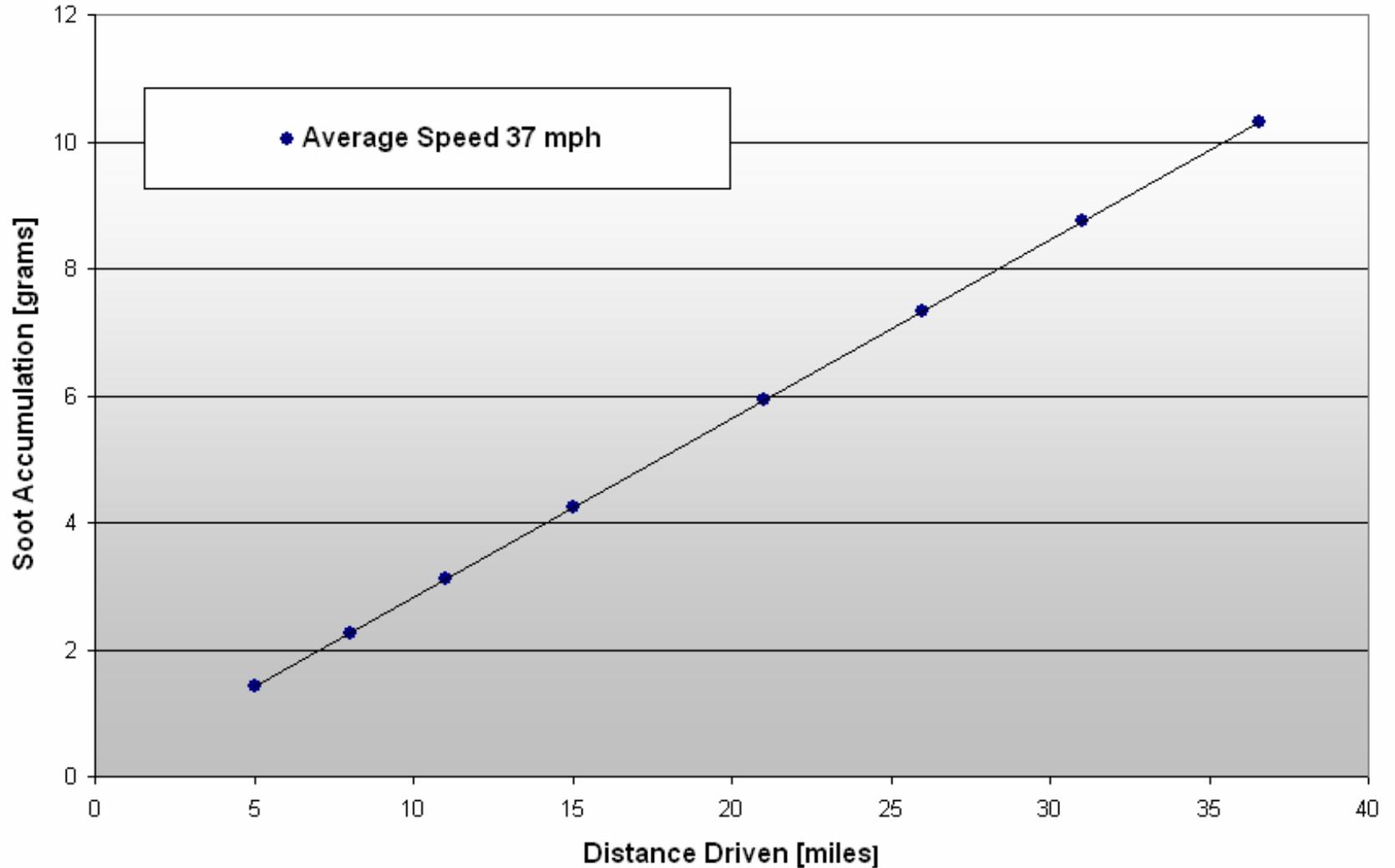


# ICS Round Pleated Filter Cartridge

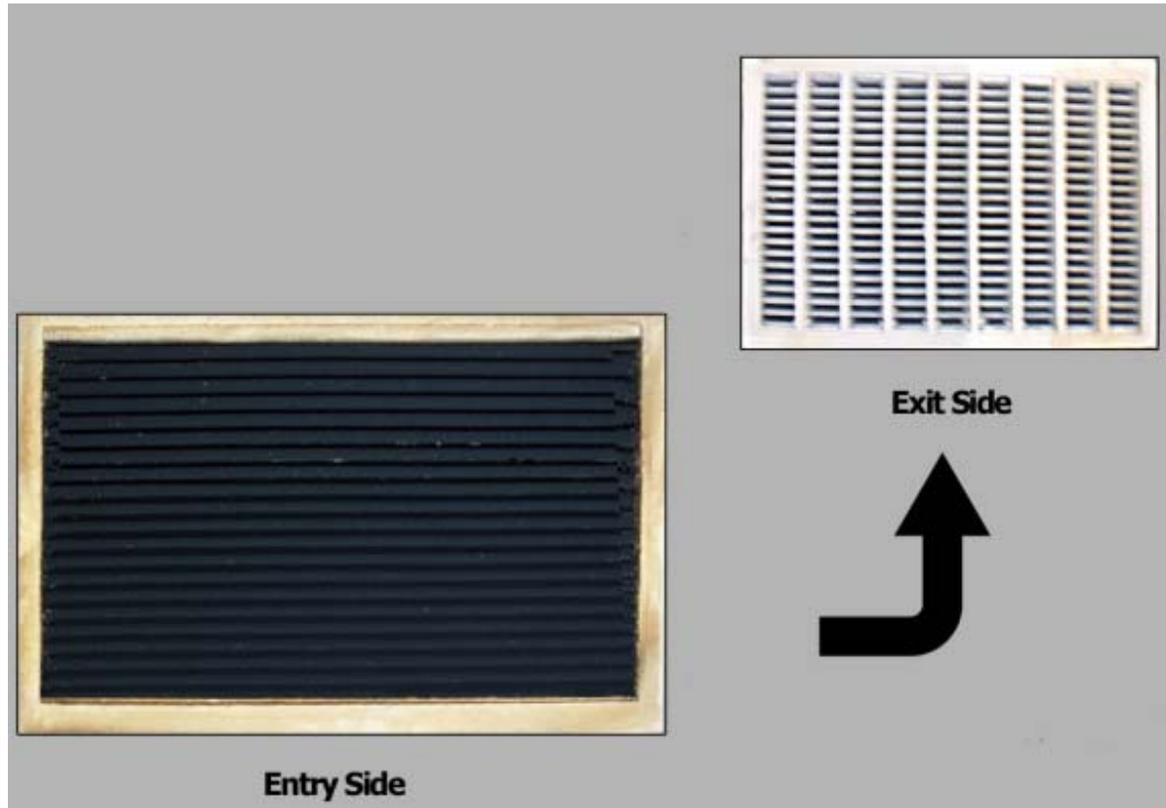


# Soot Accumulation vs. Driving Distance

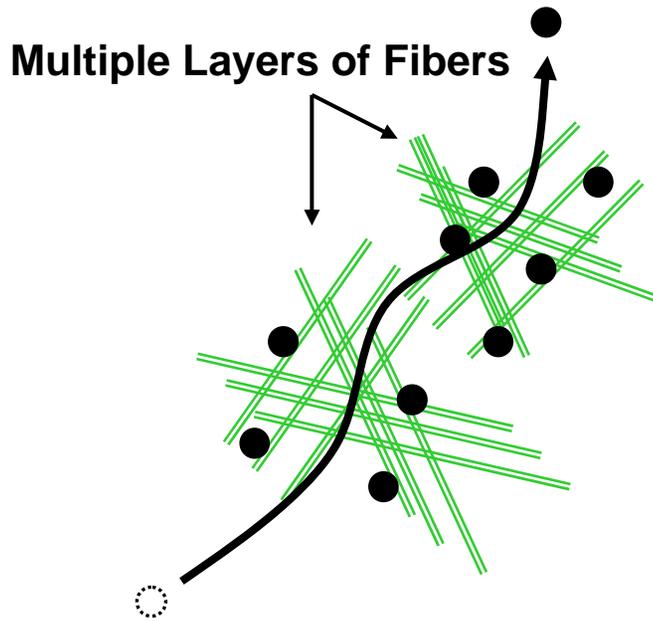
Ford F-250 7.3-Liter Navistar Turbo Diesel  
Pleated Filters #90 & #91, 7/28/05



# After 20 Road Test and Regeneration Cycles

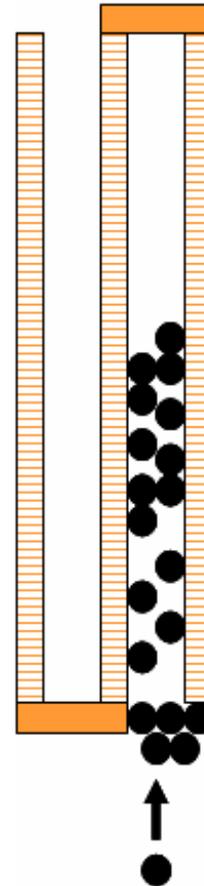


# The ICS Ceramic Fiber Filter vs. The Extruded Ceramic Wall-Flow Filter



- Pore Size 50 to 100  $\mu\text{m}$
- Thickness = 0.060"
- Delta P = 0.5 KPa

**ICS Ceramic Fiber Filter**  
90% Efficient



- Pore Size 25  $\mu\text{m}$
- Thickness = 0.008"
- Delta P = 2 to 5 KPa

**Honeycomb Wall-Flow**  
95% Efficient