

# MnI Diesel, LLC | MnI Maintenance, LLC

Setting the Standard in Oil Filtration Keep It Clean!® & Keep It Green!



## Oil Characteristics

#### Oil does not wear out

- It oxidizes during the combustion process
- It becomes contaminated due to high temperatures, soot, silica, acid, sulfur, metal particles, water, fuel and glycol
- When contaminated, oil can no longer protect, cool and lubricate
- Additives are depleted

### Oil can last indefinitely

 When harmful gaseous, liquid, and solid contaminants are removed and additives are replaced

### The puradyn® System Protects the Oil's Properties by

- Removing solid contaminants to below one micron
- Removing *liquid* and *gaseous* contaminants
- Replenishing the base additives in engine oil



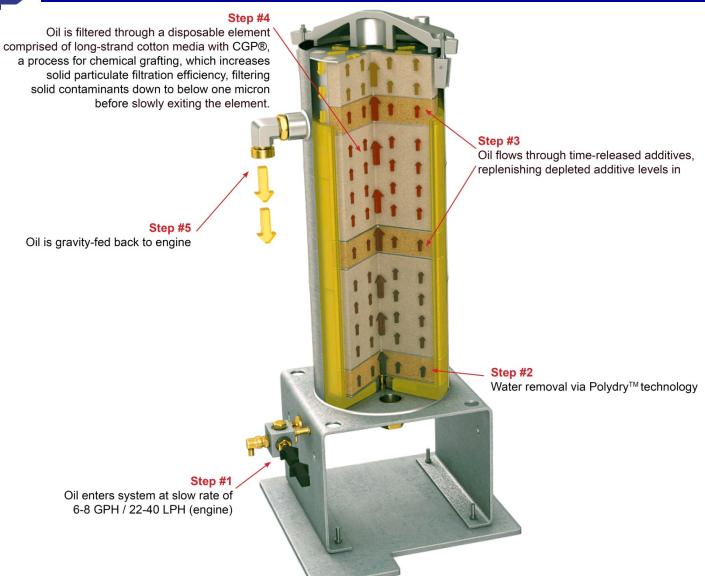
## The puradyn® Oil Filtration System

- Is a multi-stage, highly efficient bypass oil filtration system
- Works with the oil in an engine or hydraulic system
- Cleans oil by removing solid, liquid and harmful gaseous contaminants
- Maintains proper lubricant viscosity
- Works in conjunction with the OEM full-flow filter
- Additive package maintains proper TBN levels in engine oil
- Process for chemical grafting, CGP<sup>®</sup>, maximizes filtration capabilities
- Polydry® polymer-based technology captures and removes water contamination, addressing new regulations for gas and dual-fuel engines; eliminates electrical connection

Safely extends oil drain intervals!



# The puradyn® Filtering Process





# The **pura**DYN® Benefits

### Safely Extends Oil Drain Intervals

- Up to 90% of new oil purchases
- Up to 90% decrease in waste oil and disposal
- Less handling of oil and possible environmental problems
- Decreased downtime / increased productivity
- Oil Viscosity Is Properly Maintained
- Oil Additives are Replenished

### Equipment Runs on Continuously Clean Oil

- Significant extension of engine life and efficiency
- Savings from replacement of worn engine parts
- Extends life of costly engine assets ~20-25% or more

Attractive Payback & ROI – Usually 1 to 10 Filter Changes





# Evaluates the physical and chemical properties found in oil Provides:

- Understanding of quality of lubricant
- Effectiveness of the filtration system
- The operating condition of the equipment

Oil analysis should be performed at each **pura**DYN® filter change.



## Independent Test Results

#### SAE HS 806-95 ISO Fine Dust Test:

100% Efficiency over 200 Hrs.

#### SAE HS 806-95 SOFTC-2A

Avg. 69% Efficiency over 100 Hrs.

# US Department of Energy at Idaho National Laboratory for the US Government

 Final Test shows an average of 89% avoidance in oil changes and 89% oil usage reduction



# Savings Analysis

### Society of Automotive Engineers (SAE) #660081

"Filtration of previously used oil to 5 microns had no significant effect on wear, but filtration to 1 micron had a substantial effect on wear."

A fuel consumption study conducted in 2000 at the University of Leeds\* demonstrated the benefits associated with cleaner oil on fuel economy. The test noted that the engine's fuel efficiency increased 2%-3% when a bypass filter was used along with a full flow filter.

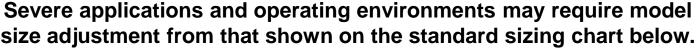
\*Ref: SAE #2000-01-0234

## **pura**DYN® Filter

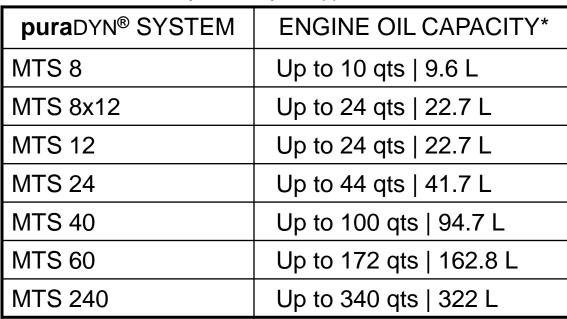
"Filtration effectiveness – 0.5 to 1 micron".



# Selecting a puraDYN® System



Please contact your local distributor or Puradyn directly if you have any questions about the correct size system for your application or environment.

















<sup>\*</sup>Higher quart capacity assumes use of CGP additive.



### Extended Oil Maintenance Intervals

Interval	One Half Interval	OEM Interval	OEM Interval	OEM Interval	OEM Interval
Puradyn Filter	Change	Change	Change	Change	Change
Oil Analysis Sample*	Yes	Yes	Yes	Yes	Yes
Full Flow Filter		Suggested change interval is every time the Puradyn replacement filter element is changed.			
Oil Change		No oil change needed unless recommended by the oil analysis report			

When the puraDYN Bypass Oil Filtration System is installed/retrofitted as an aftermarket item, change both the oil and full flow filter at time of installation. Take a sample from the <u>new</u> oil for baseline oil analysis.

Then, at one-half the normal oil drain interval (as shown above), change the **pura**DYN replacement filter and full flow filter and take an oil analysis sample.

Thereafter, change the **pura**DYN replacement filter and perform oil analysis at the intervals shown above or, as oil analysis dictates. **Continue using oil if lab report specifies oil is up to spec for continued use.** 

\*Oil analysis: Oil sample should be taken with engine running.



## The puradyn® Oil Filtration System:

- Safely extends oil drains
- Removes solid contaminants down to 1 micron
- Removes liquid contaminants such as fuel and water
- Replenishes additives to engine oil
- Offers attractive payback and ROI





## 2007 Cat Engine Equipped with **pura**DYN®







## Frac Truck Equipped with **pura**DYN®





# Cat 785B Haul Truck Equipped with puradyn®





## Genset A Plant Equipped with puradyn®

All new Generators Factory-Equipped with Puradyn Oil Filtration Systems to Achieve Engine Oil and Filters Service Interval Extension from 250 to 1,000 hours







# For more information on the puraDYN® Oil Filtration System contact:

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We Fight Dirty®!