

- What product costs less than \$500.00 and can save you almost \$4000.00 per machine in one year?

CENTRI® Air Precleaner!





CENTRI® AIR PRECLEANERS

How do they work and will they
give you a return on your
investment?

Contents

- What are your options?
- How do precleaners work?
- How can precleaners save you money?
 - The Filter effect
 - Fuel Mileage Savings
 - Reduced Downtime
 - Longer Engine Life
- Precleaner Brands and comparison
- Sizing / Implementation
- Summary

CURRENT OPTIONS

- Engine package with Filter
- Engine package with rain cap
- Engine package with dust bowl
- Engine package with precleaner

Filter Only

Pros

- Less Expensive starting point

Cons

- Little protection against rain, dirt, large debris
- Filters need changing Frequently

Filter With Rain Cap

Pros

- Cheaper than a precleaner
- Keeps rain and some large debris out

Cons

- Does not remove dirt and debris from the air
 - Frequent filter changes

Filter with Dust Bowl

Pros

- Cheaper than an ejector style precleaner
- Removes Dirt and debris from the air
- Extends Filter life

Cons

- Bowl could crack
 - Requires maintenance (bowl dumping)
- If bowl is full, all ingested dirt goes direct to filter
- Location is difficult to reach and can be a slip / fall hazard

Filter with Precleaner

Pros

- Extends Filter Life
 - Increased Fuel Efficiency
- Longer Engine Life
 - No Maintenance
 - Less Downtime

Cons

- Initial Expense

How Do CENTRI® Precleaners Work

- A CENTRI® precleaner is fitted to the air intake of your filter canister
- As air is drawn in through the CENTRI® precleaner, centrifugal force and a spinning impeller force the heavier than air particulate to the outer edge of the hood. That dirt is expelled through a louver in the hood and the cleaner air is drawn into the filter.

Field studies on Filter Life

A field test done with the CENTRI® Air Precleaner on walnut sweepers in a very dusty environment in Stockton California netted the following results.

Machines without the CENTRI® Precleaner changed filters 3 times more than those fitted with CENTRI® (see chart next page for full savings)

In some applications the CENTRI® Precleaner has extended filter life up to 15 times.

CENTRI® Precleaners: Filter savings study

Problem	Engine air filter plugging
Frequency	3 days
Cost (Air Filter)	\$80.00
Cost (precleaner)	None
Yearly Cost	\$6400.00

Solution	CENTRI® Air Precleaner
Frequency	9 days
Cost (Air Filter)	\$80.00
Cost (precleaner)	\$342.42 MSRP on an EX-50
Yearly Cost	\$2160.00
Yearly Savings	\$3897.58

Return on Investment	22 days
Return on Investment	1139%

This study was done in field tests for walnut harvesting equipment in Stockton California (see photo's next page) (based on 240 working days in a year)

This study shows the savings for one machine. Now multiply the \$3897.58 times the number of machines in your fleet (i.e. 10 machines). **The savings would be: \$38,975.80 in the first year.** Direct to your bottom line! Second year and subsequent years will net \$42,400.00 / Year

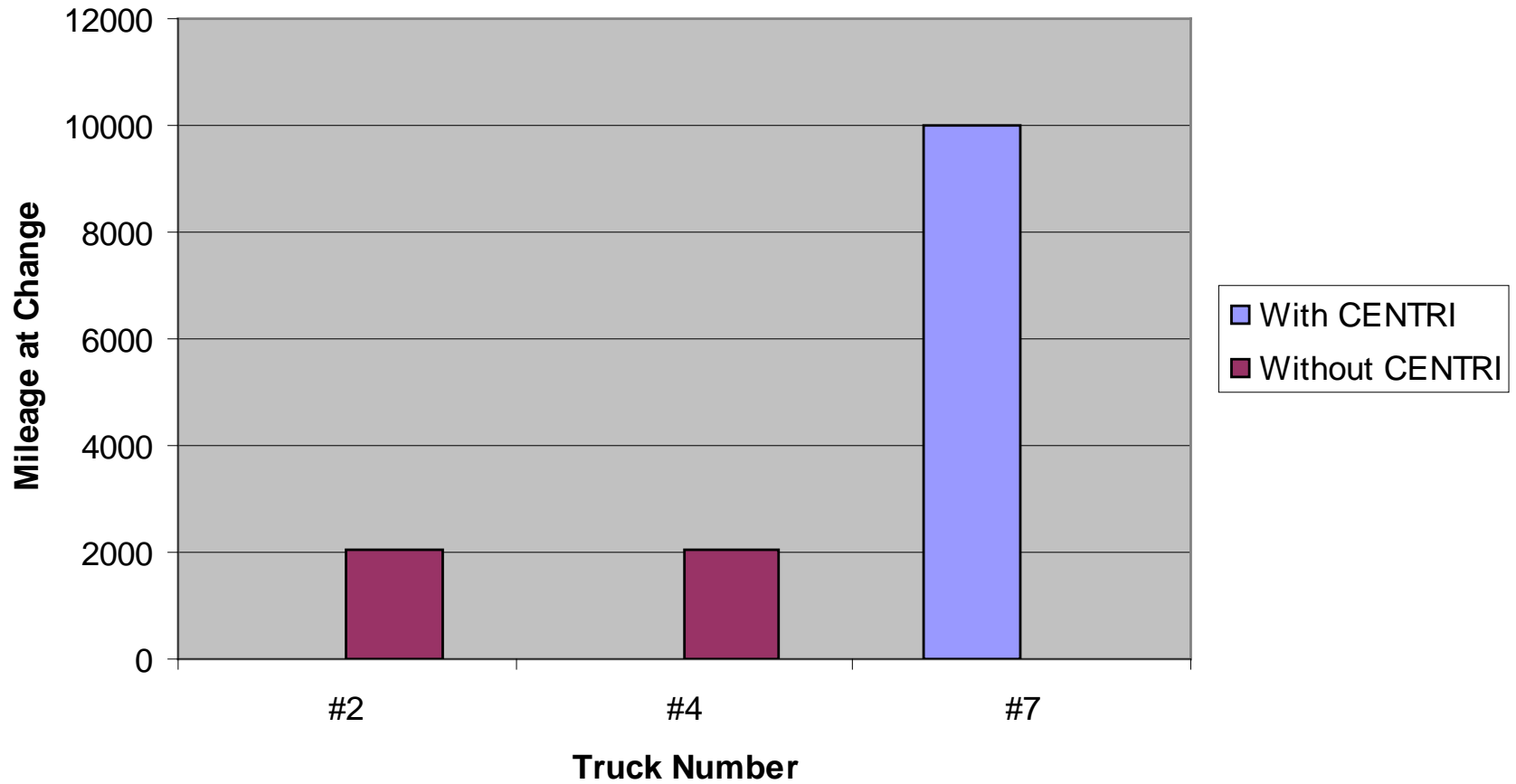
Walnut Sweepers



Filter study #2

- In This Field Study the CENTRI® precleaner was installed in a custom chopping application on a Ford Sterling haul truck.
- The Sterling with the CENTRI® had a larger hauling box than the other two trucks.
- At the end of the test all filter restriction gauges read approximately 1/3 of the way up the gauge. Trucks #2 & #4 had been changed once already

Filter Change Mileage



Ford Sterling With CENTRI



Filter Canister with Filter Comparison



Truck #2 No CENTRI



Truck #7 With CENTRI

Filter Canister Without Filter Comparison



Truck #2 No CENTRI



Truck #4 No CENTRI



Truck #7 With CENTRI

Filter Comparison



Truck #2 No CENTRI

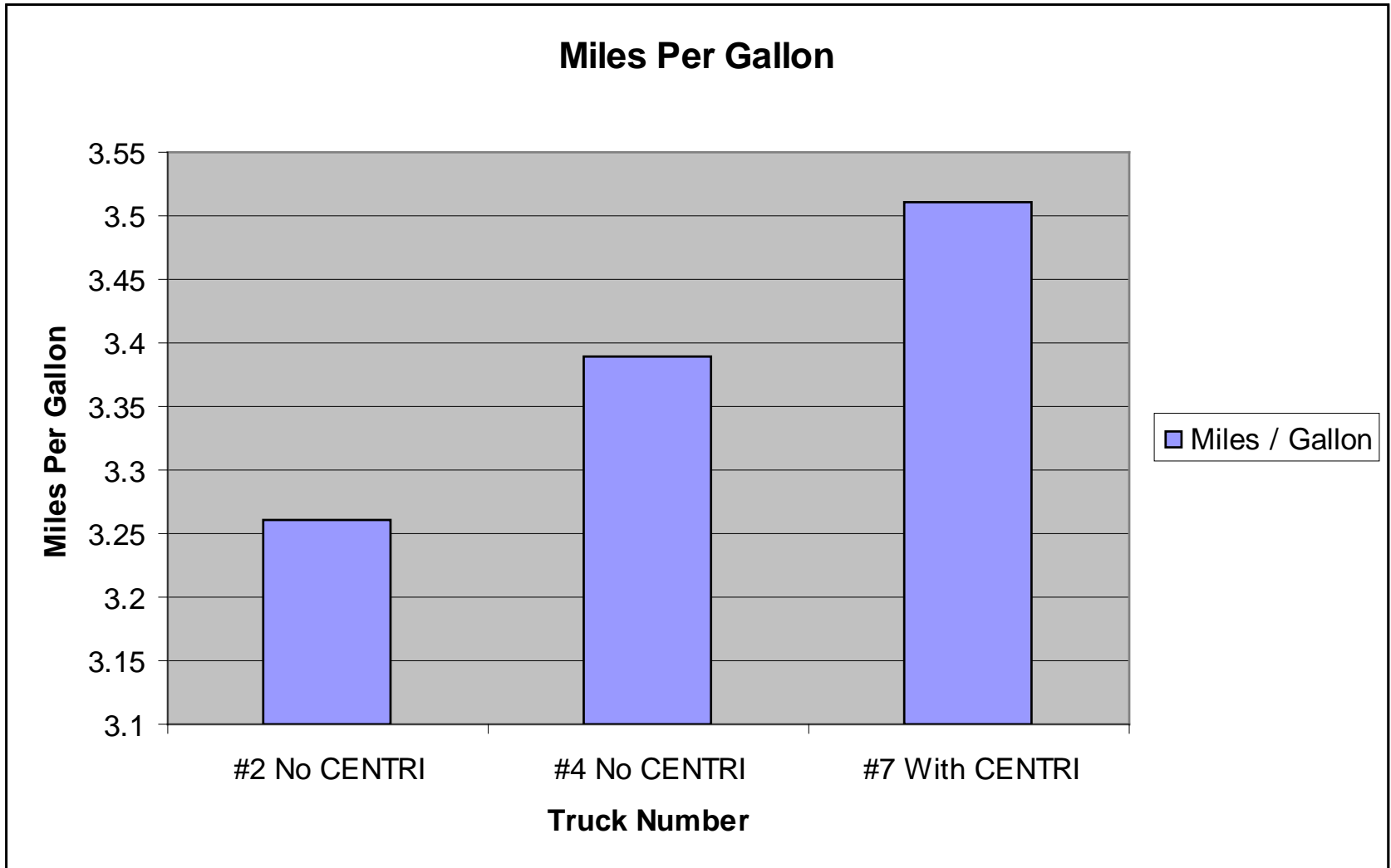


Truck #7 With CENTRI

Fuel Efficiency

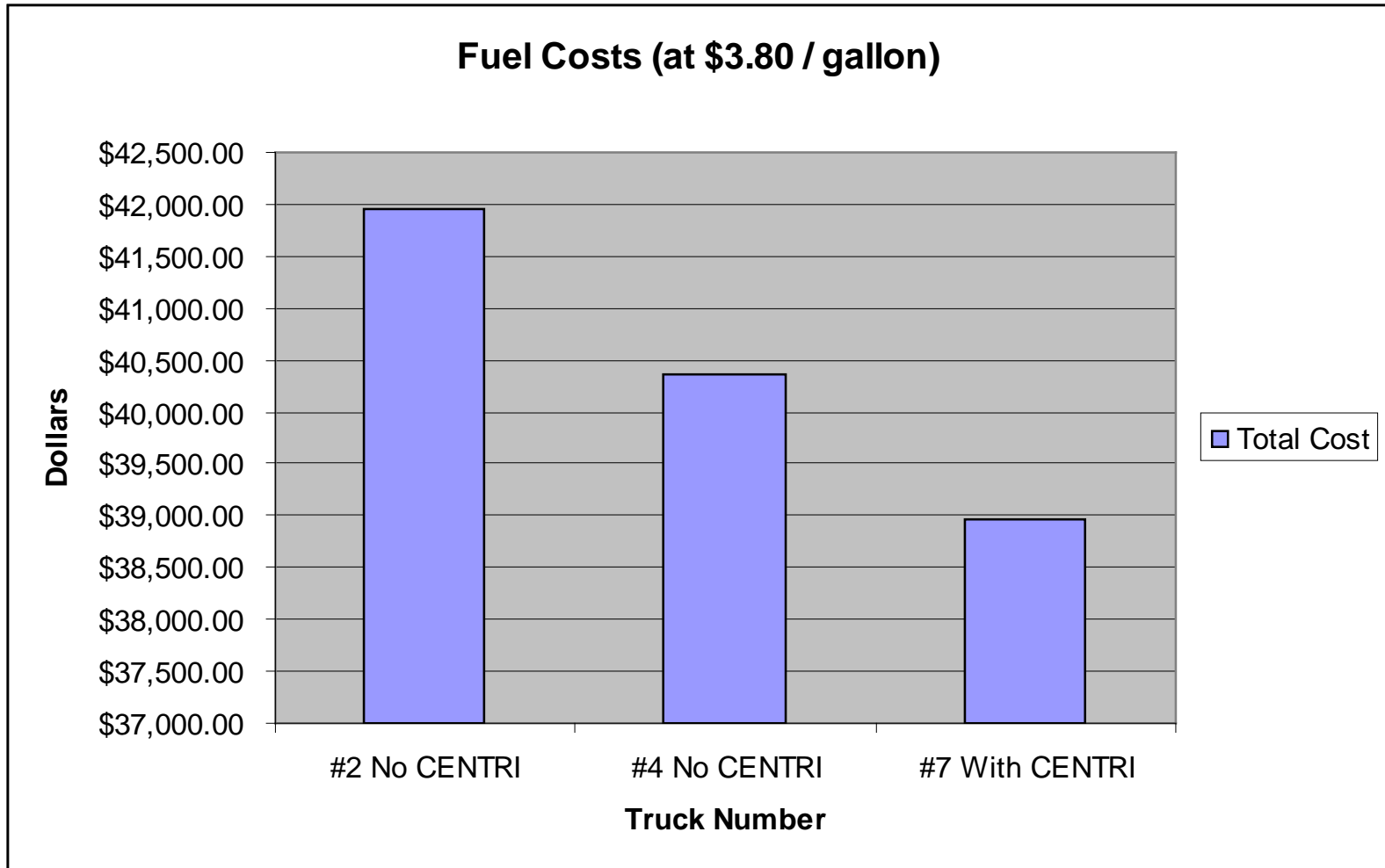
- CENTRI® Precleaners allow cleaner air to enter the engine. With less restriction to the filter and cleaner air coming in, the engine can operate more efficiently while burning less fuel.
- With fuel prices staying above \$3.00 per gallon and pushing \$4.00-\$5.00 per gallon any savings help the bottom line.

Fuel Efficiency



Even with larger hauling capacity the truck with the CENTRI outperformed the others

Fuel Costs

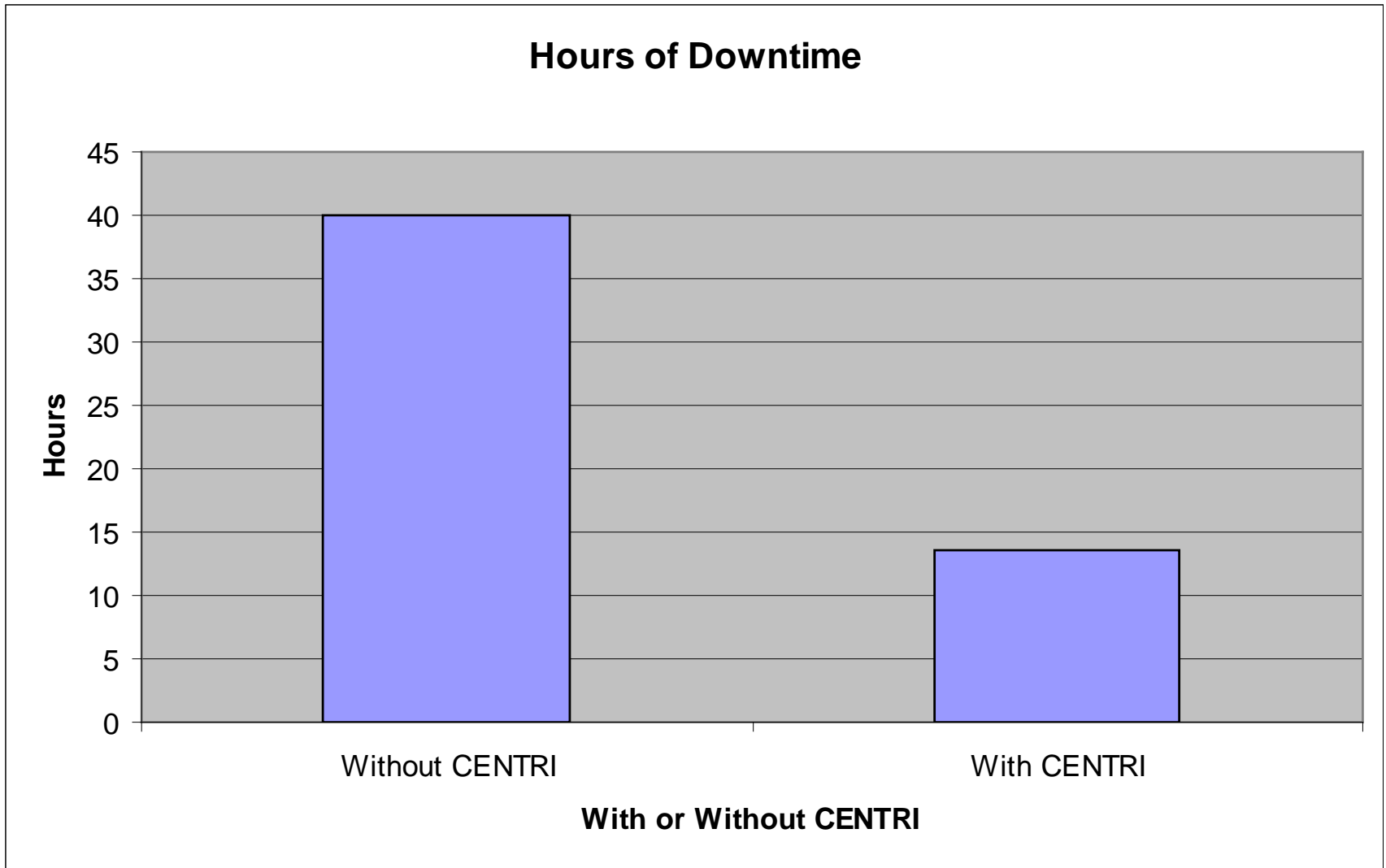


Fuel Savings up to \$2,988 per year by installing CENTRI (per truck)

Downtime

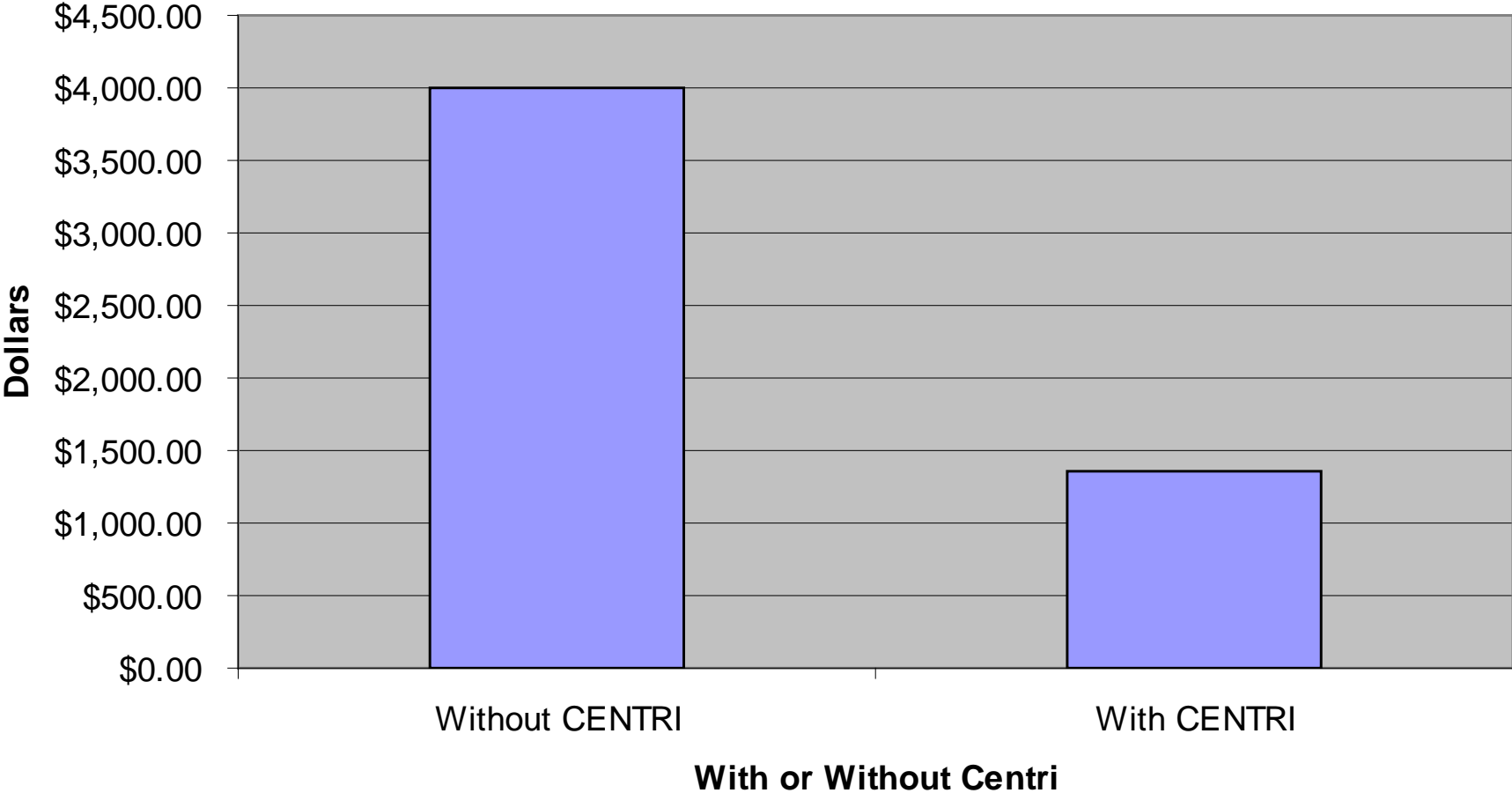
- How long does it take to change out a filter?
- Using the Sweeper Study above, let's use 30 minutes per Filter change.
- Using 240 days and 2080 working hours per year the following page illustrates how much less downtime you could save by installing a CENTRI® precleaner.

Downtime Savings



Sweeper Field Study

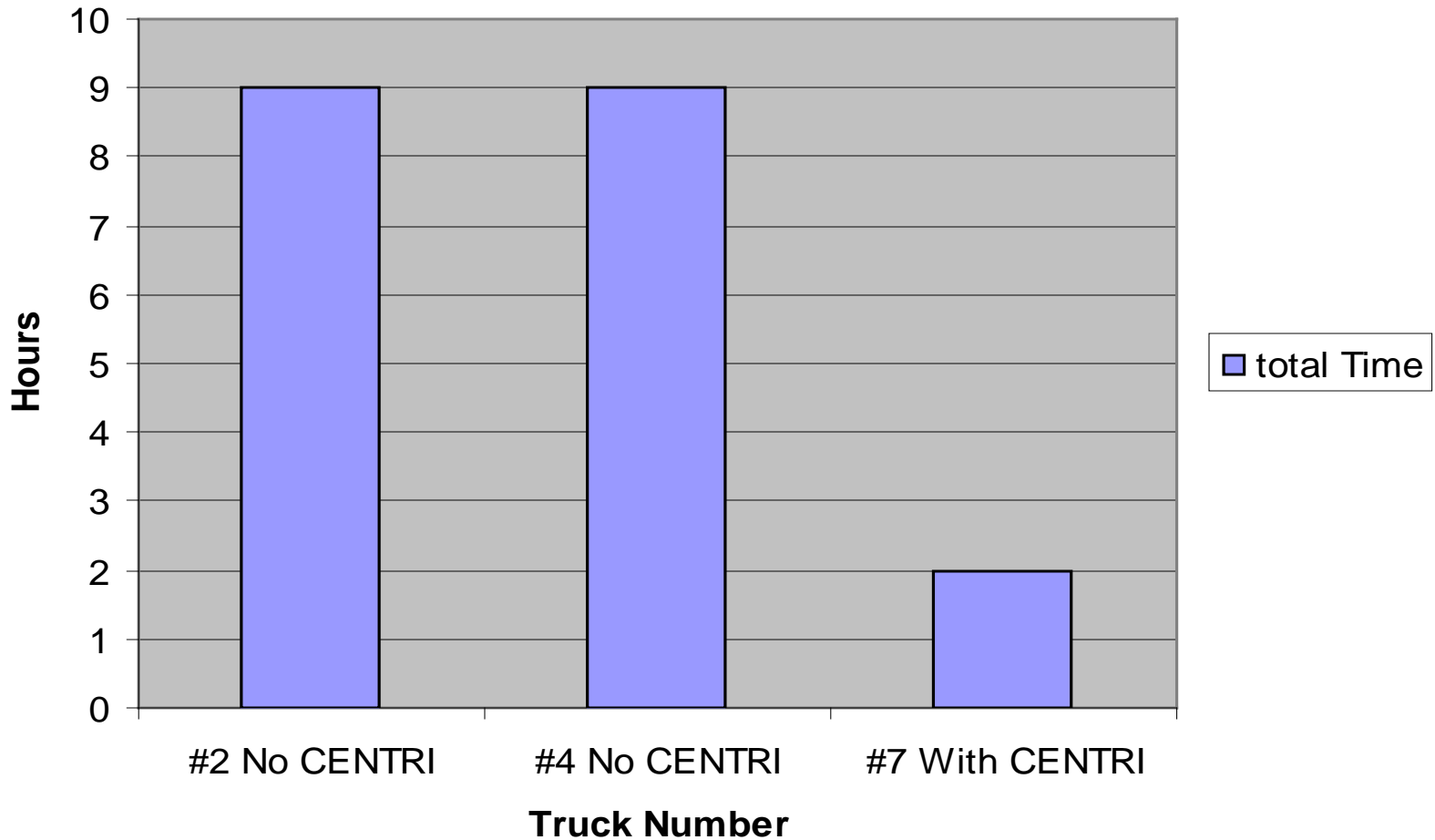
Cost of Downtime



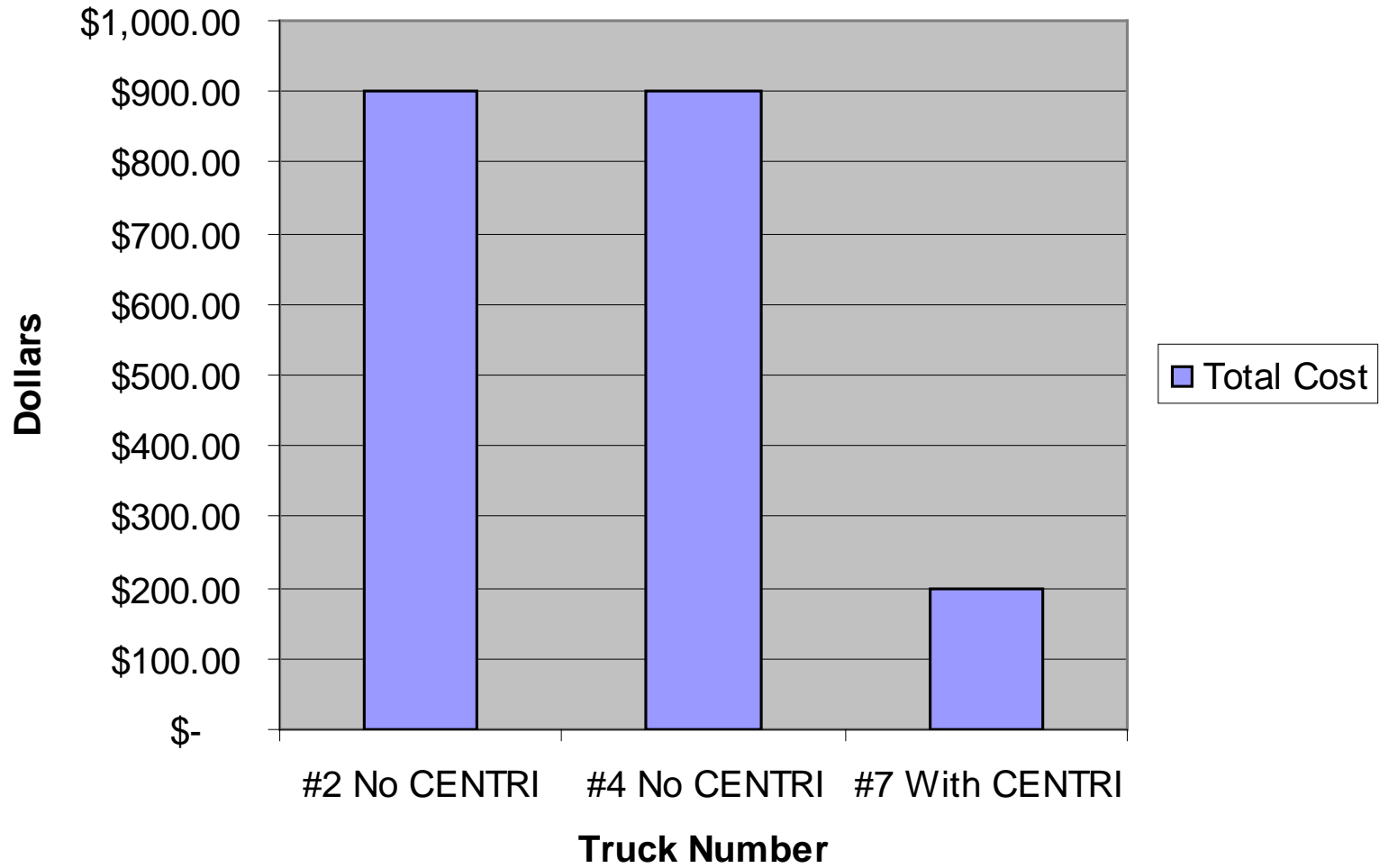
Sweeper Field Study (figured at \$100 / hour)

Field Study #2 (Haul Trucks)

Downtime to Change Filters



Total Downtime Cost



Figured at \$100 / hour

Engine Life

- Less dirt in the filter and less filter changes equals less chance for dirt to enter the engine.
- Less restriction and cleaner air to burn allows the engine to work more efficiently which leads to less wear and tear on the engine allowing the engine to last longer.

Total Savings – Sweeper Study

<u>Sweeper Study</u>	<u>No Precleaner</u>	<u>With Precleaner</u>	<u>Total Savings</u>
Filter Cost	\$ 6,400.00	\$ 2,160.00	\$ 4,240.00
Downtime Cost	\$ 4,000.00	\$ 1,350.00	\$ 2,650.00
Precleaner Cost		\$ 342.43	\$ (342.43)
Total Yearly Cost	\$ 10,400.00	\$ 3,852.43	\$ 6,547.57

Total Savings for a Fleet of 10 Sweepers first year

\$ 65,475.70

Total Savings – Haul Trucks

<u>Haul Truck Study</u>	<u>No Precleaner</u>	<u>With Precleaner</u>	<u>Total Savings</u>
Filter Cost	\$ 1,060.90	\$ 216.15	\$ 844.75
Downtime Cost	\$ 900.00	\$ 200.00	\$ 700.00
Fuel Cost	\$ 41,249.58	\$ 38,974.36	\$ 2,275.22
Precleaner Cost	\$ -	\$ 436.72	\$ (436.72)
Total Yearly Amount	\$ 43,210.48	\$ 39,827.23	\$ 3,383.25

Total Savings for a Fleet of 10 Trucks first year

\$ 33,832.50

CENTRI® Precleaners – An Easy Decision

- As you can see in the studies above, a small investment can lead to large returns in just one year.
- The numbers prove that CENTRI® precleaners do work and CENTRI® precleaners can save you money.
- What are your options for adding a CENTRI® precleaner to your application?

Precleaner Brands

- CENTRI®
- Brand A Metal
- Brand A Plastic
- Brand B Metal
- Brand B Plastic
- Brand C
- Brand D

With so many options, how do you choose?
Which is the best?

COMPETITIVE PRECLEANER COMPARISON CHART

COMPONENT	CENTRI® DRM Diversafab	Brand A		Brand B		Brand C	Brand D
		(Metal)	(Plastic)	(Metal)	(Plastic)		
ISO 9001:2008 Registered	Yes	No	No	No	No	Yes	No
HIGH HEAT (HH) MODELS	Yes	No	No	No	No	No	No
COVER	Aluminum	Carbon Steel	Plastic	Aluminum	Plastic	Plastic	Plastic
PLENUM/BODY	Stainless Steel	Carbon Steel	Plastic	Cast Aluminum	Plastic	Plastic	Plastic
IMPELLER	Stainless Steel	Plastic / Light carbon steel wire w/ss paddles		Stainless Steel	Plastic	Plastic	Plastic
BALANCE	Dynamic balance			Static balance			
DISCHARGE LOUVER	Single punched Top position	Multiple small vents Below radius of cover		Single punched Top position	Molded Top position	Molded Top position	Molded Top position
VANES	Curved & angled			Angled	Angled	Curved & angled	Curved & angled
FINISH	Clear Powder Coat	Black enamel	Plastic	Lacquered			UV Plastic
POSITIONING	Any angle	Vertical only		Any angle	Any angle	Vert/Horizontal	Vert/Horizontal
MAINTENANCE FREE	Yes	No	No			No (screen)	Yes
CFM RANGES COVERED (1 UNIT)	50-1600	100-1100	15-1100	20-2000	3-850	10-1400	50-1500
ON TIME DELIVERY	99.90%	3 weeks from dealer		1 week (per TF)	1 week (per TF)	2 days from dealer	3 days from dealer
CUSTOMER SERVICE	No phone tree	Enter extension/phone tree		No Phone Tree no call back	No Phone Tree no call back	enter extension or 0 for operator	Phone Tree
WARRANTY	“LIFETIME” (entire unit)	One year or 3000 hrs.	Two years or 5000 hrs.	Lifetime (entire unit) submit invoice	Lifetime (entire unit) submit invoice	Limited Lifetime (entire unit) Original Equip. & Purchaser Only.	1 - year
HIGH HEAT MODEL WARRANTY	FIVE YEARS						

FOR EASY COMPARISON TO CENTRI®: THE FEATURES & BENEFITS OF CENTRI ARE IN **RED BOLD** TYPE, ONLY A FEW OF THESE ARE UTILIZED BY THE COMPETITION AS DESIGNATED IN **BLUE**. revised 113010

CENTRI® Features & Benefits

FEATURES

BENEFITS

Durable All Stainless Steel and Aluminum Construction	Long lasting and Durable. It will NEVER rust
30 years of “On the Job” dependability	Proven Product that you can depend on.
Low Restriction and High Efficiency	Longer Engine and Filter Life. Less Cost to your operation
Installation at any angle	Able to fit in some of the most difficult applications
Maintenance Free	Less downtime for your equipment and employees equals more money in your pocket
ISO9001:2008 Manufactured Product	Highest quality products and continuous improvements.
Dynamically Balanced Impeller	Lifetime warranty and smooth operation. Less vibration leads to longer bearing life.
On Time Delivery	Peace of mind knowing your parts will arrive on time eliminating any downtime.
The Return on Investment Multiplier	Installing CENTRI® can save you money!

Implementation

- Implementation is easy. CENTRI® Precleaners are sized by the airflow of the engine (never by intake size)
- Once CFM is determined we can properly size the precleaner for your application and within a matter of minutes your CENTRI® can be installed and saving you money!

Summary

- Installing a CENTRI® Precleaner is quick and easy and can save you money in many ways
- Less Filter Changes
- Less Downtime
- Better Fuel Efficiency
- Longer Engine Life
- Safer Work Environment
- Choose CENTRI® and be rewarded with great savings and an increased Net Income