



SPECIALTY PRINTING LLC  
*Corporate Office*

4 THOMPSON ROAD



CONVERTING BETTER IDEAS

# Established in 1978



# Lean Is . . .

*Elimination of **Waste***

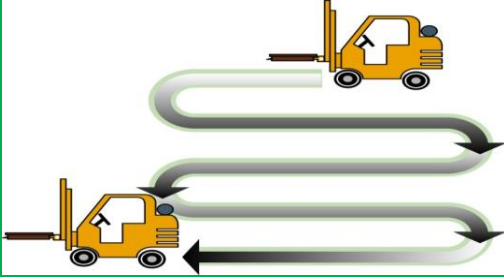
*To Create New*

*Capacity and Skills*

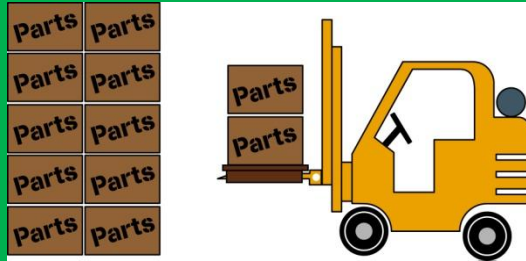
*To Grow Profitably!!!*



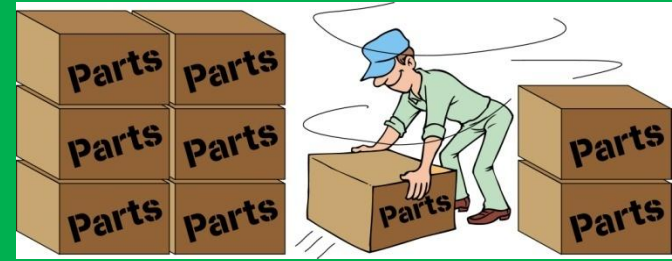
# TOM-D-WIP



**TRANSPORTATION**



**OVERPRODUCTION**



**MOTION**



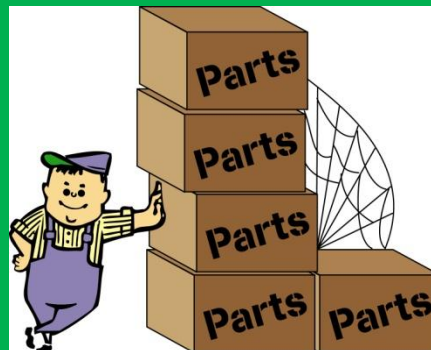
**DEFECTS**



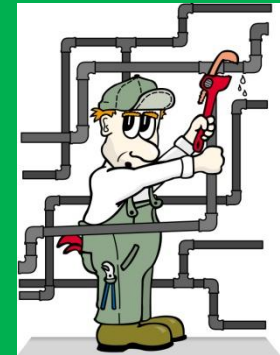
**Environmental Waste**



**WAITING**

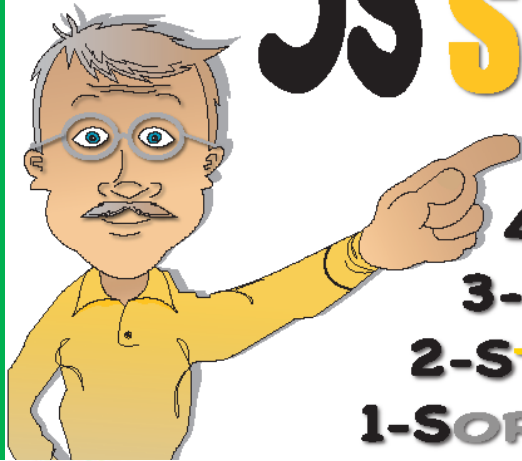


**INVENTORY**



**PROCESSING**

# 5s The First Step Towards Lean **SUCCESS**



- 5-SUSTAIN
- 4-STANDARDIZE
- 3-SCRUB
- 2-STRAIGHTEN
- 1-SORT

Before Lean  
Unorganized Work Areas



After Lean  
Everything Has a Home



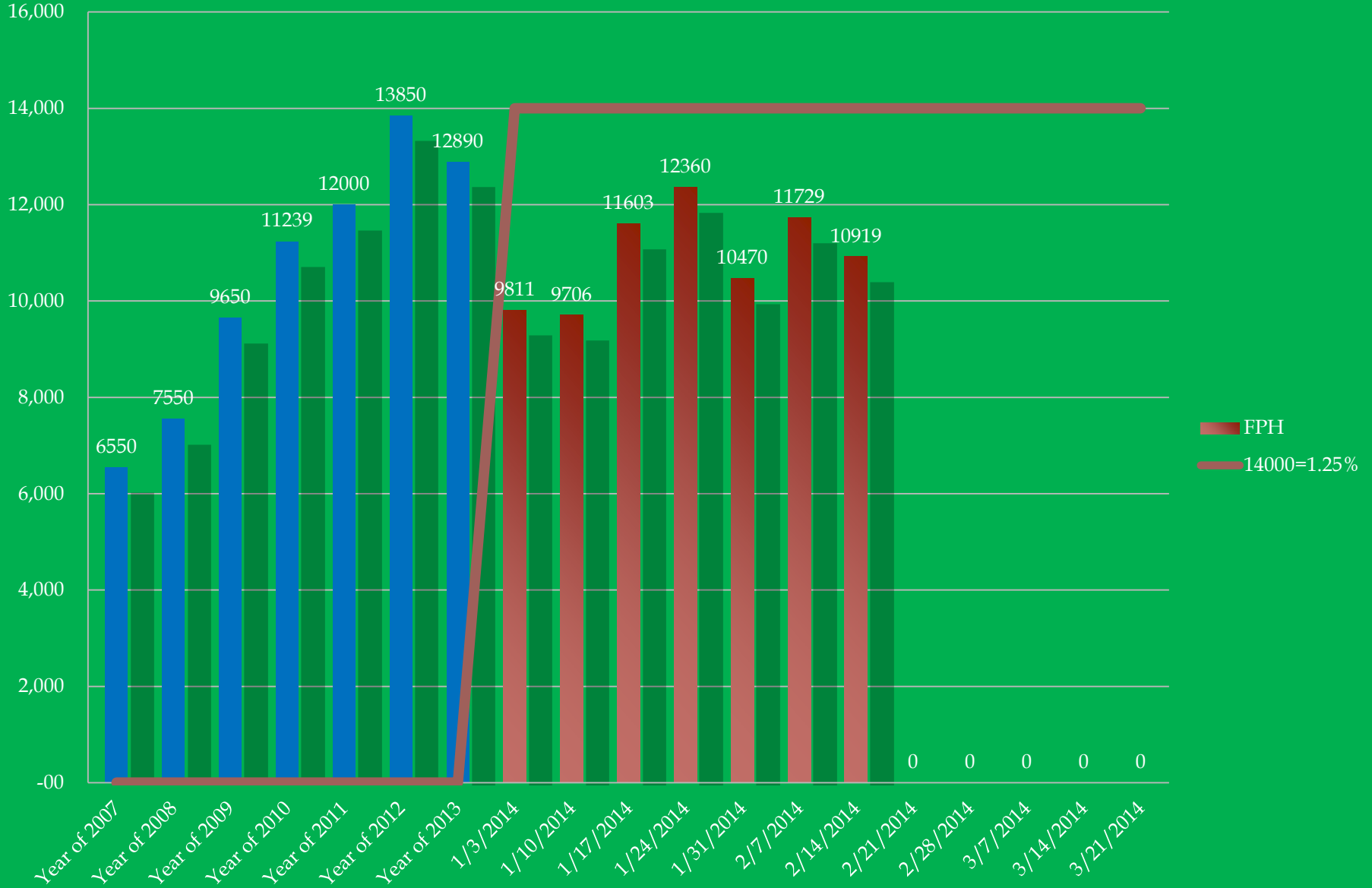
# 2005 Factory Floor



# Factory floor 2013

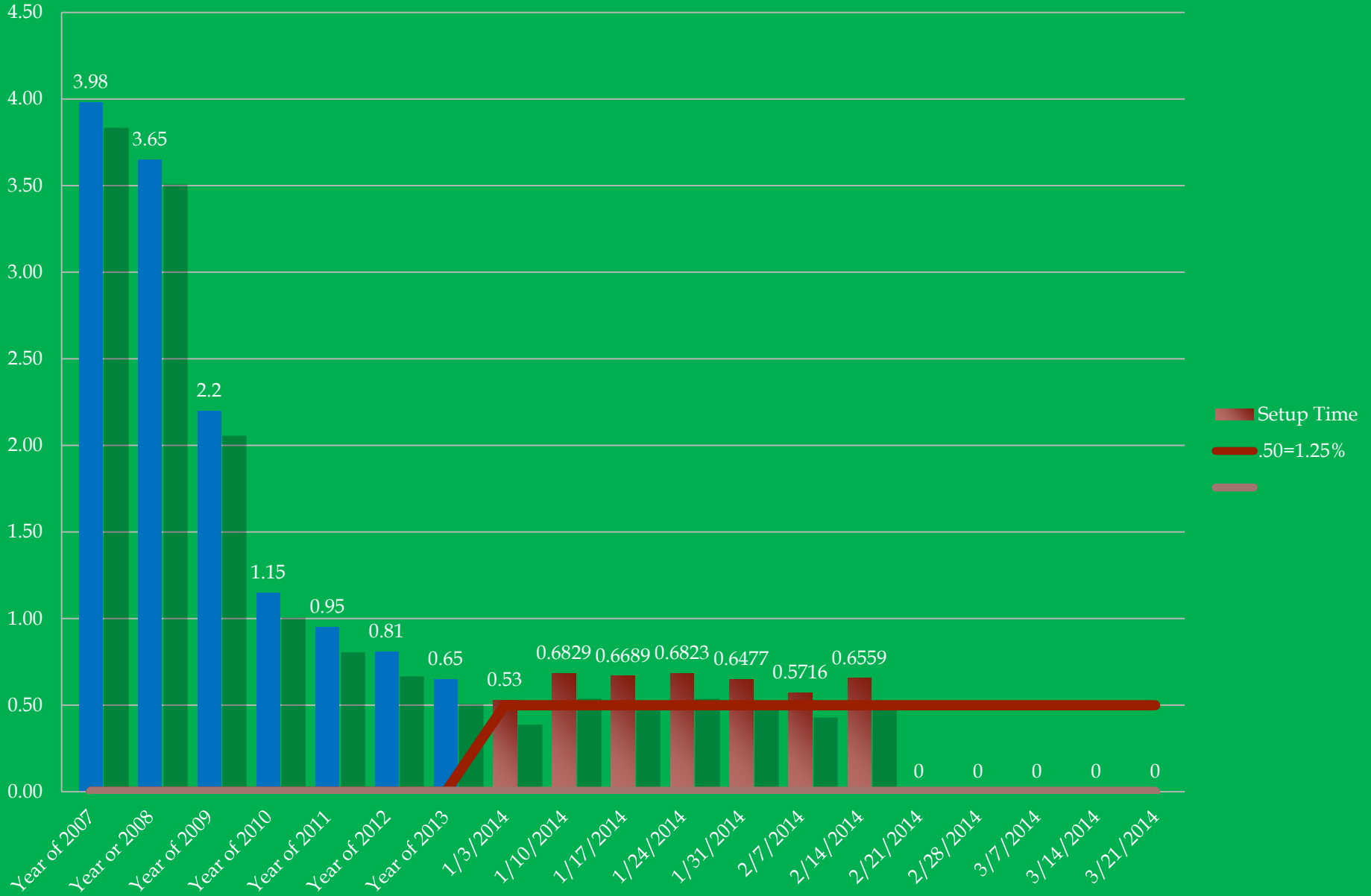


# Feet Per Hour

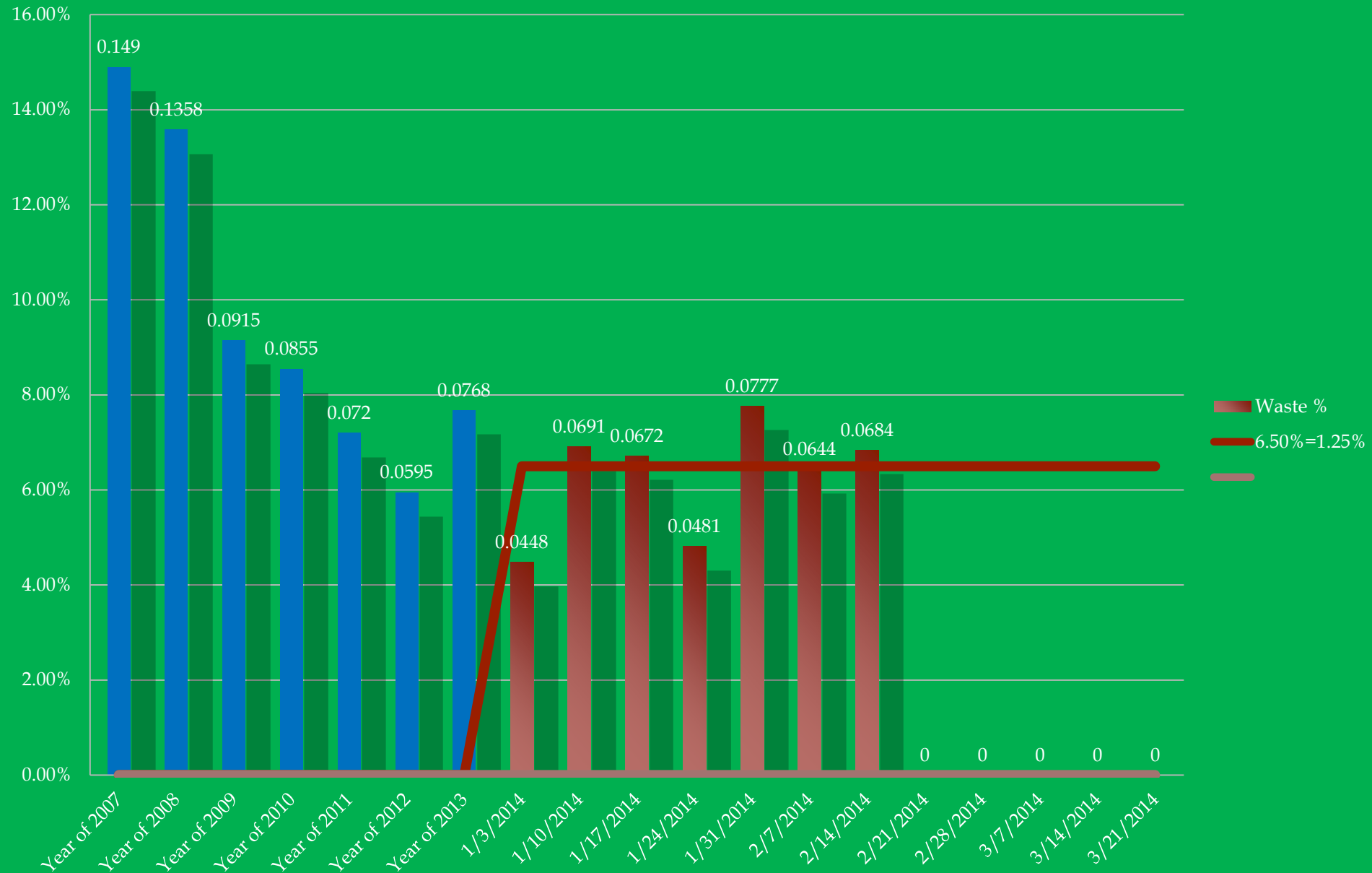




# Average Set Up Time

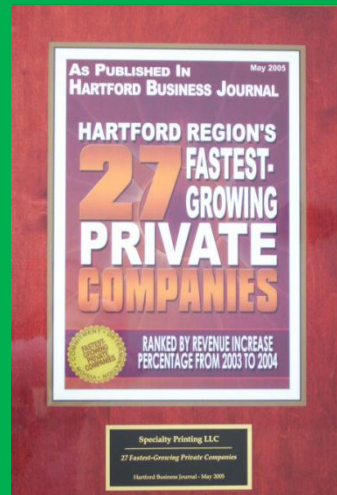
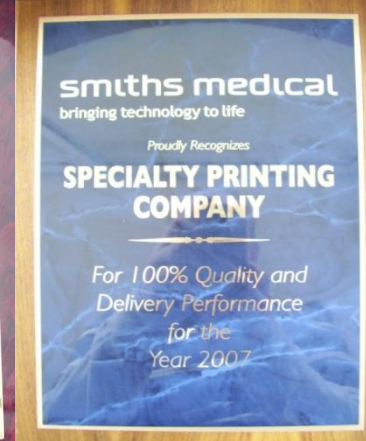


# Paper waste %



# Company Recognition Since Starting Lean in 2007

- ✓ Uconn Family Business of the year
- ✓ Smith Medical 100% Quality Award
- ✓ CT's Fastest Growing Company Twice
- ✓ CT's Business Champions Twice
- ✓ CT's Family Business of The Year
- ✓ Johnson and Johnson Silver Award
- ✓ Flexo Trade Association Sustainability Award
- ✓ Written up in numerous trade magazines



# Waste to Energy

## Benefits

Cost is cut by more than half  
Will take most of your waste

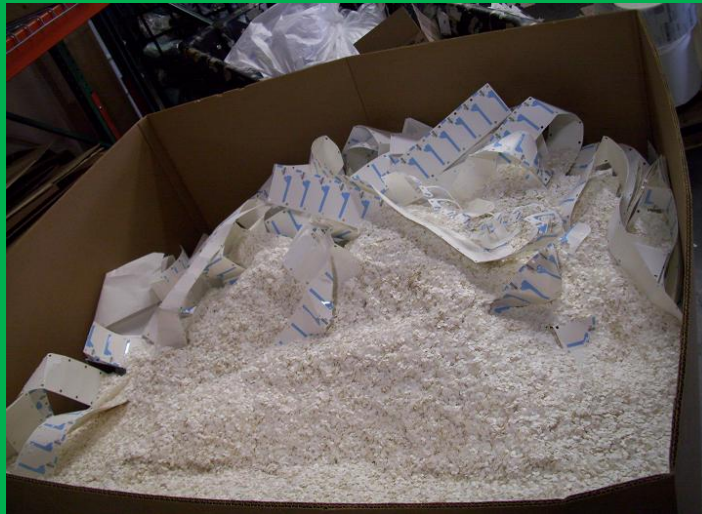
## Restrictions

No Metal  
No Food  
No Batteries  
Why not Recycle these



**80 %** of all waste in the landfills  
could have been utilized as waste to  
energy

# Focusing on becoming Lean and Green



# Recycling

**Recycled 46,625 LBS of Cardboard**

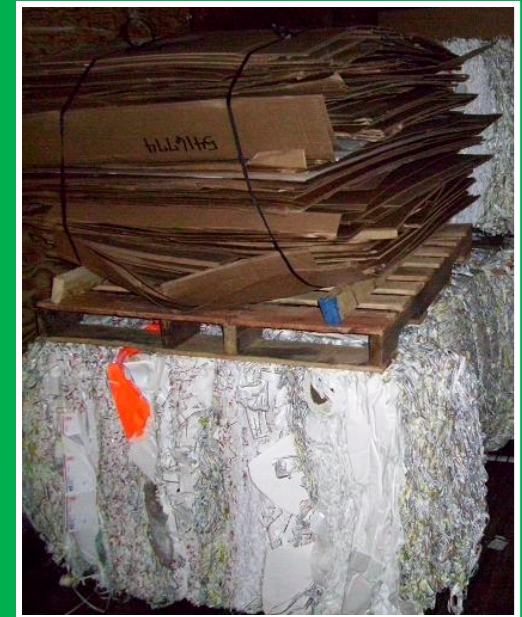
**Recycled 1,829,975 LBS of Pressure sensitive paper**

**Recycled over 13,500 cans and bottles**

(We also Recycle all Metal, Wire, Wood, pallets, and office paper)

**Reduced water consumption by 65%**

**Reduced Total Waste 25.7% or 716,731 LBS**



# Sustainability in the Factory

## Using the Air Compressor for Heat

(Heating the Building with the air compressor reduced Natural Gas 34.7% or \$12,433)

## Air Leak Detection

(Stopped our air compressor from running at 98% and reduced it to 92% at 110 PSI now that we can keep up with the Air we have turned down to 90PSI and are running at 68% of max )



We go through 6 barrels a month at a cost of \$2000 a barrel + \$180 a barrel for shipping and now we only use 1.5 barrels a year

# Sustainability in the Office

Recycled 21,706 LBS of Office Paper



Hot Air Hand Dryers

( Replaced out paper hand towels )



Office Copier Switched to Duplex

(so we can print and copy on both sides)



Installed automatic light sensors

( Reduced Electric consumption 2.9% at 4 Thompson Rd and 15.1% at 15 Thompson Rd Total Savings of \$9,471 )





# The 5R Concept

**REFUSE:** Avoid buying unnecessary waste

**RETURN:** Return packaging materials to suppliers

**REDUCE:** Reduce waste at the source

**REUSE:** Reuse everything possible

**RECYCLE:** Recycle any remaining waste

# Refuse = “Turn It Off” Program

## Easy ways to implement

- Display posters that encourage participation from all employees.
- Buy motion sensors for offices and other light trafficked areas.
- Turn off all possible equipment during breaks and lunch
- Shut down all computers when you go home or have a automatic shut down put on all computers

### What get's measured get's done

- Electric utility meters or building energy management systems can easily monitor day time and night time consumption to track the effectiveness of “Turn-it-off ” efforts.



# Reuse / Return



453 tons of Styrofoam Returned to Japan in 2009  
Savings of \$1.3 million per year



Reused 567,700 Caps in 2009

Solvent Recovery  
Reduced Solvent purchases by 79%



Reused 22,880 pallets in 2012



# New Technologies to help Reduce & Reuse



Have around 4,500  
at \$300 to \$10,000



Now we are using  
only need 100  
cost \$900



Now we can order  
any shape at a cost  
of \$300 max

That is less than the  
shipping of the old way



We go through 6 barrels a  
month at a cost of \$2000 a  
barrel + \$180 a barrel for  
shipping and now we  
only use 1.5 barrels a year

# Reengineering Current Customer Products to be more Sustainable

Reduced ink coverage by 90%

Old



New



Old



New



# Reengineering Current Customer Products to be more Sustainable

Old Label: 3.5 x 2.0

New Label: 3.0 x 1.85



Old



New



250 Roll Count

# Recycle / Dumpster Diving



# Recycle / Dumpster Diving



One of the best ways to reduce waste is to inspect what is thrown out and why. Another effective way is to inspect what is thrown out. Have people put everything to the side and then you inspect it before it can be thrown out.



# Recycling Programs

Taking recycling to a new level



To make it easier for people to identify where to put their recyclables they have painted out an area in their factory

Kaizens were held for zero to land fill and was achieved



If you are not sure where it goes then put it here



The Wall of waste This lets you see what is no longer purchased



Giving back to the community by teaching a better way

# Green

## Using the Air Compressor for Heat

(Heating the Building with the air compressor reduced Natural Gas 34.7% or \$12,433)



## Hot Air Hand Dryers

( Replaced out paper hand towels )



## Office Copier Switched to Duplex

(so we can print and copy on both sides)



## Air Leak Detection

(Stopped our air compressor from running at 98% and reduced it to 92% at 110 PSI now that we can keep up with the Air we have turned down to 90PSI and are running at 68% of max )



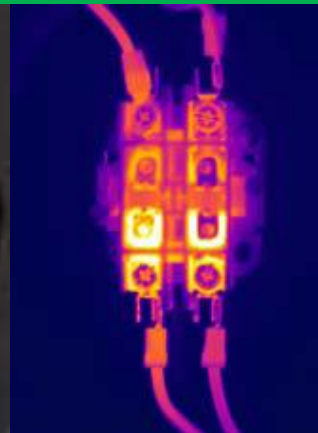
## Installed automatic light sensors

( Reduced Electric consumption 2.9% at 4 Thompson Rd and 15.1% at 15 Thompson Rd Total Savings of \$9,471 )



# TPM Total Preventive Maintenance

- Motor's
- Drive's
- Bearing's
- PLC
- Ultra Sonic Air leaks
- Thermal Imaging
- Vibration analysis
- Motor balancing



TPM reduced our down time 730 Hrs last year

# Quick and easy pay back

- ✓ Change out the lights



- ✓ Install motion sensors for lighting



- ✓ Recycle all office paper



- ✓ Recycle cans and bottles



- ✓ Waste to Energy



- ✓ Recycle all metals



- ✓ Shut down programs (Equipment and computers)



- ✓ Start buying Energy Star when possible

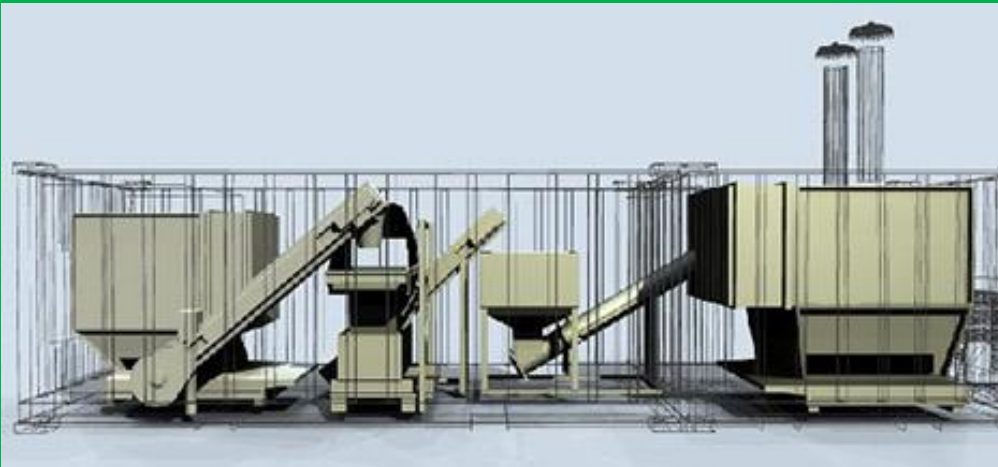


- ✓ Have your utility provider do a Energy audit



# Trash to Energy

- Eliminates cost of disposing your trash
- Can power your building within a small footprint ( 3 Parking spaces)
- You can use the heat from this to heat your building
- Eliminates trash from going to a land fill
- Portable and works any where



A photograph of a dirt path winding through a dense forest of tall, thin trees. Sunlight filters through the canopy, creating a dappled light effect on the path and the surrounding green undergrowth. The path is covered in reddish-brown leaves and leads towards the center of the frame.

Thank You