

GREEN DESIGN FOR BETTER MANUFACTURING & PROFIT

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Daughter of the Late Wolfgang Unger
President of ECO-WOLF, INC.

Welcome to the Green Design for Better Manufacturing & Profit. I am SabineCorinna Unger, daughter of the late Wolfgang Unger and currently the President of ECO-WOLF, INC. Being Wolfgang Unger's daughter has been an honor and a privilege. I am here on behalf of my father. When he passed away last September, I was asked if I would give his speech at the ACMA Composites 2011. While I don't claim to be able to fill Wolfgang's shoes, I share his passion and vision for a Greener Planet and I promise to continue his legacy.



The **GREEN** is KEEN Revelation!

Wolfgang built his first prototype recycling system in 1973 so, “The GREEN is KEEN Revelation!” came as no surprise to him!

When seeking effective methods to recover wasted resources, the options can be scarce. That is why we were driven to find better solutions.

In this day and age the term “Green” is so widely misused. Look for true ways to become “Green” and profitable!

The Problems that Have Surfaced:

- The high cost of virgin FRP materials
- Environmental costs and concerns with composite materials disposal:
 - Regulative action concerning industrial waste
 - Producer responsibility for waste treatment
 - Styrene emission concerns across the world
 - Ever increasing costs to dump pricey material
 - Not just the disposal fees, but all those additional costs of labor (including the tax and insurance costs), equipment, and lost production resources.

Supply is diminishing as costs are rising, just look at the price of steel or concrete since China needed so much?

Yes, government regulations have been getting more stringent since the early 70's.

I will get into more about the styrene emission concerns on a later slide.

It COSTS more MONEY to get rid of your scrap, trimmings and overspray than to reclaim it.

And we're simply running out of places to put this waste. Landfills are FULL!!!

VOCs Have Been an Issue for ACMA & this Industry for Years:

- **The environmental and governmental pressures are increasing; our conscience and public responsibility should require it anyway!**
- **It's really a BRAINER if one is serious about preserving our environment for ourselves and our posterity!**

Recently ACMA emailed all of us that article "EPA Sues Plastics Maker Over Styrene Emissions".

Take notice of this you might be next.

Using a formulation that needs less styrene is available today!

We all need to consider what we have already used or misused from our planet. Air contaminants CAN be decreased if not eliminated all together.

New advances in technology are being made every day. It's really a BRAINER if one is serious about preserving our environment for ourselves and our posterity!

When it's already proven to be profitable.

The Benefits of Recycling Composites & Natural Fibers:

- A common ROI of less than 12 months
- Exchanges FRP disposal costs for profit
- Up to 50% savings in material costs
- Reduces roll-out labor by at least 80% (when used with our *No-Roll™* formulation)
- Significant reduction of environmental pollution
 - Significant Styrene emission reduction
 - Elimination of landfill waste

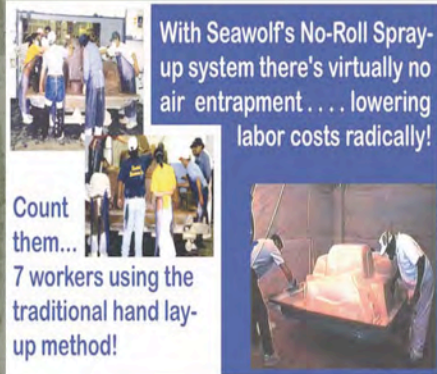
It just makes sense to put the materials you've already paid for once back into your product.

Better than paying twice -- once to buy -- twice to throw away.

Your Return on Investment can often be just 6 to 8 months and 12 months is reasonable.

It's getting expensive to put fiberglass in the dumpster, if allowed at all. Replace your chop and filler with your own reclaimed trimmings, overspray, and scrap. Our "No-Roll"™ spray-up formulation which yields virtually NO air entrapment can save your company BUNDLES in labor costs. Fewer VOC's (volatile organic compounds) can get as low as 10 ppm and sometimes even lower. Wolfgang did it almost 30 years ago. So I know it's possible but only if your care. Elimination of landfill waste is not only the GREEN thing to do, recycling saves your company from paying the increasing fees placed on dumping composites in the landfill and a few states and many countries will not allow it at all and it's only going to get tougher and more expensive in the future. Start now to make money by being GREEN!!!

The Seawolf/Seacast No-Roll™ Spray-up System:



- At least 90% less roll out labor
- VOC emissions as low as 10ppm
- Reduces material cost by 25-35%
- Fast mold turn over
- Less than 6 minute gel times
- Greater physical strength

The ECO-WOLF, INC No-Roll™ Spray-up System:

At least 90% less roll out labor.
VOC emissions as low as 10 ppm.
Reduces material cost by 25-35%
Fast mold turnover.
Less than 6 minute gel times.
Greater physical strength.

FRP Recycle & Fiber Recovery



If the video does not play here, go to www.gogreenfrp.com "Wolfgang's Recycle & No-Roll Presentation"

Production Methods Using Recycled FRP & Natural Fiber

- Compression Molding
- Casting
- Hand Lay-up
- Resin Transfer Molding (RTM)
- Conventional Spray-Up
- Rotational Molding
- Spin Casting
- Filament Winding
- Pultrusion
- Vacuum Infused Compression Molding

Compression Molding

Casting

Hand Lay-up

Resin Transfer Molding (RTM)

Conventional Spray-Up

Rotational Molding

Spin Casting

Filament Winding

Pultrusion

Vacuum Infused Compression Molding

Items Made Using Recycled FRP & Natural Fibers

- Bath Tubs & Sinks
- Whirlpools & Spas
- Asphalt & Concrete
- Swimming Pools
- Boat Hulls & Structural Parts
- Automobile Interior Parts
- Dock Pilings & Planks
- Truck Toppers
- Portable Water Closets
- Shipping Container Flooring
- Public Transport Interior Parts
- Structural Parts (e.g. benches, fences, decks, etc.)

THE POSSIBILITIES ARE ENDLESS

Items Made Using Recycled FRP & Natural Fibers

Bath Tubs & Sinks

Whirlpools

Spas

Swimming Pools

Boat Hulls & Structural Parts

Automobile Interior Parts

Dock Pilings & Planks

Truck Toppers

Portable Water Closets

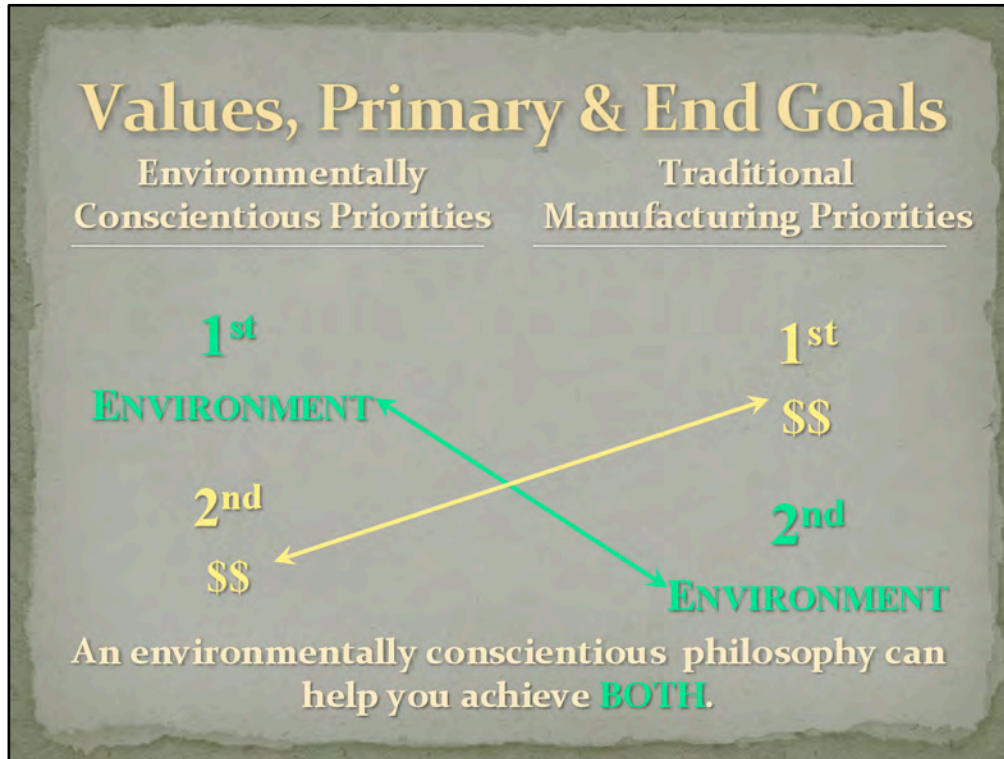
Shipping Container Flooring

Public Transport Interior Parts

Structural Parts (e.g. benches, fences, decks, etc.)

This is not an exclusive list! It is bounded only by your creativity, your boldness, and your innovation.

This list by next year should be at least double or triple in size. What items would like to add to this list? As far as I'm concerned it could be endless.



Values create our rubric, which shapes our primary, secondary, and ending goals. By focusing on the environment as our primary goal; being driven by & between producers, government, environmental realities, and consumer demands; our secondary and ending goals come into fruition through this first interaction. The explosive growth of governmental grants makes this an ideal opportunity to improve your company's quality of product, lower your productions costs, thereby raising your profits. This coupled with a growing customer consciousness of environmental concerns makes it imperative that we can put forward a true GREEN face!

STOP!

**...THROWING
MONEY DOWN
THE DRAIN!**



If there is just ONE thing you take away with you today,
let it be that:

You PAY for raw materials

You PAY wages to have trimmings/scrap gathered

You PAY more and MORE to dispose of the scrap

STOP PAYING – START PROFITING...GO GREEN!

**STOP PAYING –
START PROFITING...
GO GREEN!!!**



He will be missed, but we promise to continue his legacy to "Save the Earth" one customer at a time.

Thank you,

SabineCorinna Unger
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