

Design for Recycling

Superfactory Excellence Program™
www.superfactory.com

Disclaimer and Approved use

■ Disclaimer

- The files in the Superfactory Excellence Program by Superfactory Ventures LLC ("Superfactory") are intended for use in training individuals within an organization. The handouts, tools, and presentations may be customized for each application.
- THE FILES AND PRESENTATIONS ARE DISTRIBUTED ON AN "AS IS" BASIS WITHOUT WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED.

■ Copyright

- All files in the Superfactory Excellence Program have been created by Superfactory and there are no known copyright issues. Please contact Superfactory immediately if copyright issues become apparent.

■ Approved Use

- Each copy of the Superfactory Excellence Program can be used throughout a single Customer location, such as a manufacturing plant. Multiple copies may reside on computers within that location, or on the intranet for that location. Contact Superfactory for authorization to use the Superfactory Excellence Program at multiple locations.
- The presentations and files may be customized to satisfy the customer's application.
- The presentations and files, or portions or modifications thereof, may not be re-sold or re-distributed without express written permission from Superfactory.

- Current contact information can be found at: www.superfactory.com

Outline

- Importance of Design for Recycle
- Definitions
- Strategies and Processes
- Developing an End of Life System
- Cost Factors
- Approach to DFR
- Recyclability Assessment

What is DFD and DFR?

Design for Disassembly (DFD) and Design for Recycling (DFR) is:

- A type of green manufacturing
- Products are designed to be taken apart, so that they can be used in later generations of products.
- Also known as Design for Remanufacture or Reuse.

What is DFD/DFR?

“The goal is to close the production loop, to conceive, develop, and build a product with a long-term view of how its components can be refurbished and reused--or disposed of safely--at the end of the product's life.....”

What is DFD/DFR?

“...In a world where the costs of disposal are rising, ease of destruction becomes as important as ease of construction.”

-Gene Bylinsky, *Fortune*

Why?

- Unlike other green business programs, DFR has financial benefits as well as environmental ones.

Why?

Why include recycling/reuse plans in the design process?

- Thinking problems through beforehand can lower recycling costs dramatically and reduce environmental hazards.

Why?

- New laws across Europe will soon require manufacturers to take back used product.
- In Germany, manufacturers are already responsible for the final fate of their products' packaging.
- Similar legislation is expected in the US in the not-to-distant future.

Why?

“The Germans have established a de facto global manufacturing standard. U.S. companies wishing to compete globally must start making products that will comply with the green dictates of the huge European market” -Gene Bylinsky, *Fortune*