Finding Information on Materials and Manufacturing Processes

Why go to the library – why not just search the Internet?
Why go to the Library?

1. There is information in books that can’t be found on the Internet

2. Even if the information is available online – it might not be retrieved with a search engine
There is information in books that can’t be found on the Internet?

Yes! The Library has many books covering

- materials selection
- manufacturing processes
The Materials Selector details the relationship between:

- product design
- selection of materials
- manufacturing

Density?  Shape?  Cost?  Surface finish?  Strength?
Consider an item -

• Is it metal, plastic, other?
• What is the shape, thickness, texture?
• How much did it cost?
• How heavy is it?
You determine that it is:

- metal
- inexpensive
A handy resource might be:

In this book, you will find that:

Carbon steels are -

• strong
• tough
• often used for springs
• wear resistant
• cost less than $1/kg.
Case studies and case histories are included in many of our books on materials selection.
How about the manufacturing process?
We have books that provide detailed descriptions of manufacturing processes.

Look for clues:

• shape & thickness
• surface roughness
• holes
• seams
• machining marks
Be sure to look at *How Products are Made*

• Here you will find manufacturing information for many everyday items.
Reliable sources information on the Internet:

- U.S. Patent and Trademark Office
  www.uspto.gov

- Thomas Register
  www.thomasregister.com
Do you see a patent number?
Example: 6,533,282

- Patents are available full text online through the Patent Office web site.

- Describe how an invention works, includes drawings, may include materials and manufacturing information
Thomas Register

- find companies and products manufactured in North America
- online company catalogs and websites
- CAD drawings

ME 302
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The McKinney Engineering Library

• ECJ 1.300

• 495-4511

• englib@lib.utexas.edu