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Rounding 109

Nearly every industrial product has rounding. On closer inspection, their shape can be regarded as a combination of parts of cylinders, spheres and blocks. There are only a few basic roundings – with endless variations, however. Understanding their structure will enable you to draw effectively, based on estimation.

Chapter 7

Cross sections 133

Cross sections can curve a surface, and help 'read' unpredictable shapes. They can also be of use when 'building' an object or determining shape transitions. In some cases, objects are not drawn starting with a volume, but with a plane.

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Ideation 153

For most designers, sketching by hand is preferable for the first (intuitive) design steps. Others prefer to 'sketch' in 3D. Sketching is not an isolated phase; it 'mixes in' with other ideation and presentation methods, like modelling or computer rendering. Various examples are shown of how sketching is used in ideation.

Chapter 9

Explanatory drawings 179

Drawings can be used to 'explain' product information to others. Communicating the integration of technical parts of a product to engineering, for example, or the working of a product to the end user. Over time, the communication of technical information has resulted in specific kinds of drawings; like the Exploded View or the Instruction Manual.

Chapter 10

Surface and textures 197

A drawing of a product will become more realistic if its material properties, such as transparency, gloss or structure, can be seen. The intention is not to draw photo-realistically, but to gain insight in effects and properties, so that material can be 'suggested'. Drawings can be made more 'presentable', and decisions in the design process can be taken based upon them.

Chapter 11

Emitting light 221

A special kind of drawing situation occurs when an object is emitting light. Bright light and also soft light such as backlights or LEDs are discussed.

Chapter 12

Context 235

Products are related to people, interfaces, interaction, and ergonomics. Some products are indistinct when seen without their context, especially for people outside the branch or design field, like marketers or sponsors. People or surroundings can simply place a product in its context or even show the real-life implications of a product and at the same time give scale.