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Sketching in side view provides an easy 3D suggestion of a product. Drawing this way is generally experienced as easier than perspective drawing. A redesign of a domestic handheld mixer explains the drawing approach basics of sketching in side view, step-by-step.

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Basic perspective rules are needed to start drawing in perspective, but these rules can also be regarded as a tool to influence visual information. Separate aspects of perspective and their impact in drawing are shown.

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Simplifying shape	55
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Learning how to analyze helps you to simplify complex situations into understandable simple steps. An effective analysis results in an effective drawing. Complex and simple drawings are compared for an effective approach to drawing. Major players are block shapes, ellipses, cylinder and planes. The following chapters are ordered accordingly.

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Elementary geometrical shapes	67
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In addition to perspective, shading is used to create depth. The immediate spatial impact of a drawing is largely determined by its contrast in shading, and with that the choice of light direction. The influence of light on simple geometric shapes is explained, as they form the basis of most drawings.

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A lot of people 'automatically' start drawing an object by first drawing a block. In a lot of situations, however, a cylinder or ellipse can be the most appropriate starting point of a drawing. In this approach, the ellipse plays a major role, to which other shapes are related.

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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.

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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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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.

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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.

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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.

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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.

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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.

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