

GLOSSARY

PRODUCT DEVELOPMENT JARGON

BOM

Bill Of Materials - a list of all the parts used in an assembly

brainstorming

used as a generic term for creating new ideas, it is a structured process

buck

the tool or mould used for vacuum forming

CAD

Computer-Aided-Design - creating virtual 3D CAD models that can be used to generate technical drawings & 3D files for rapid prototyping and production

client

the purchaser of Ideal Industrial's services

clone

to copy (usually cast) a part when modelmaking

CMYK

Cyan Magenta Yellow black - colour system used in print, also see 'spot colour' and 'RGB'

CNC / NC

Computer-Numeric-Control refers to milling machines and lathes that are controlled by computers and creates prototypes and tooling - also referred to as NC

COB

Close Of Business

consumable

A part that must be replaced regularly, like an ink-cartridge in an inkjet printer

consumer

the end user of a product or service

control drawing

a technical drawing used in conjunction with a 3D CAD file - defines critical fits and tolerances, colour, material, and non-geometric information

copyright

refers to laws that regulate the use of the work of a creator, such as artists, authors and musicians - not that applicable for product development, see 'patent' and 'design registration'

www.ipaustralia.gov.au

customer

any person or entity in the value chain that could be targeted for value creation

Design Registration

protects the appearance of an article, not its function

die

a shaped knife that cuts paper packaging. - also a non-preferred name for a mould or tool

draft

draft angle - allows moulded and cast parts to be removed from moulds without getting stuck (see 'line of draw')

dry-transfer

a method of simulating printed product graphics on a model or prototype, like customised Letraset®

EAN

European Article Number - an 8 or 13 digit barcode used in Europe and Australia - see 'GSI'

eDrawing®

a free PC/Mac 3D CAD file viewer
www.edrawingsviewer.com

elevation

taken from architectural and engineering drafting, it refers to an illustration that shows the product from front, right, left, top or bottom with no perspective

EMI

Electro Magnetic Interference

FDM

Fused Deposition Modelling - an RP technology that creates parts by extruding molten plastic - cost effective, strong, but rough parts

FOD

Foreign Object Damage - resulting from loose particles, dust, dirt, etc.

FS

Field Servicable

FTP

File Transfer Protocol - a reliable way to send large files over the internet

GA

General Assembly drawing

GSI

The global barcode number issuer and standards authority
www.gs1au.org

IGES

"Initial Graphics Exchange System" a generic 3D computer file format that can be opened by any CAD program

illustration

a 2D drawing (artist's impression)

IP

Intellectual Property

IPP

Intellectual Property Protection - patents, trademarks & registered designs

IP-Rating

a standard system for rating water and object ingress protection

ITF

Interleaved Two of Five - 14 digit shipper (i.e. non retail) barcode system

kit

a specific configuration of a product specified in the BOM, with a unique SKU and barcode

lash-up

see Proof-Of-Concept Model

line-of-draw

the direction a mould or die opens - determines draft angle

look & feel

refers to a product's appearance, style and behavior, with no consideration for how these are achieved

material-safe

leaving excess material on a part or tool so it can be adjusted after trialling

mockup

the physical embodiment of a mechanical design that performs as required but does not look like the final article - in the packaging industry it is the equivalent of a presentation model

model

depending on the context it can be a physical mockup or prototype, a CAD file, a template, a theory, or someone in front of a camera

MOQ

Minimum Order Quantity

NC

See CNC

NDA

Non Disclosure Agreement

NURB

Non-Uniform Rational B-Spline - used in CAD to accurately describe complex surfaces

Objet®

an RP technology that uses inkjet technology to create parts similar to SLA but tougher

OE / OEM

Original Equipment Manufacturer - a supplier to a name brand

Parasolid

The name of a 3D CAD kernel (mathematical brain) - though commonly used to refer to X_B files

Patent

A time limited monopoly granted by the government for the full disclosure of the embodiment of an idea - protects function, not appearance

PCB

Printed Circuit Board - holds and connects electronic components - usually the last part to be finished

PDF

Adobe® "Portable Document Format" a computer file format that is compact and can be opened on any computer - accurately displays graphic content and used to communicate technical drawings and graphic artwork
www.adobe.com

presentation model

a physical model that looks exactly like the finished part but is non-functional - the opposite of a mock-up

proof-of-concept (POC)

a quick physical model of an idea to see if it is feasible

prototype (PTT)

a sophisticated facsimile of the final product that looks and behaves almost identically to the manufactured article

rapid prototyping

a set of modelmaking technologies that utilises high-tech machinery and materials to create physical models directly from the CAD data

rendering

a photo realistic illustration

RFQ

Request For Quotation

RFQ-kit

a document set used to seek manufacturing quotations - contains control drawings, 3D CAD files, a Bill of Materials, and delivery dates, etc.

RGB

Red Green Blue - colour system used in TVs and monitors

RP

Rapid Prototype

Reverse Engineering

Analysing competitors' products

NPD

New Product Development

SA

Sub Assembly

SG

Specific Gravity - a volume/weight ratio - water is 1.0 (1cc weighs 1g), steel about 7.8 (1cc weighs 7.8g)

sketch

hand drawing, the most basic form of visual communication

skin model

the CAD equivalent of a presentation model - fully defines the exterior but without any internal detail

SKU

Store Keeper Unit - a unique retail product

SLA

Stereo Lithography Apparatus - an RP technology that uses a UV laser to selectively cure liquid polymer - creates detailed but fragile parts

SLS

Selective Laser Sintering - an RP technology that fuses powdered nylon with heat from a laser - produces tough parts but with a rough surface finish

SolidWorks®

the 3D CAD program used by Ideal Industrial

spot colour

used in print - ink of a specific colour - not composed of CMYK colours

SRB

Squeak, Rattle, Buzz - to be avoided

STEP

A generic 3D CAD file format (also see 'IGES' and 'X_B')

STL

An early generic 3D CAD file format that breaks surfaces into triangles for downstream processing (analysis or RP)

technical drawing

a drawing that completely defines a part (size, shape, tolerances, colour, finish, material, etc.)

technical package

The functional parts that make a product work, e.g. PCB, display, buttons, etc.

tool

a hardened steel mould for injection moulding, diecasting, forging, or stamping - precise, expensive and difficult to change

UPC / UCC

Universal Product Code - 13 digit barcode used predominantly in the USA - see 'GS1'

USP

Unique Selling Proposition

UX / UI

User Interface

workshop

(noun) a place with big machines to make models and prototypes

rubdown

see 'dry-transfer'

X_B

Parasolid file format - near-generic, application neutral 3D file format (see 'STEP' and 'IGES')

z-print

an RP technology that creates relatively rough and fragile parts but it is quick and cost effective