



CCL Design Guadalajara Manufacturing Capabilities



CCL Industries Overview

4 Divisions



Established
1951



People
26,000+



Locations
>213



Annual Revenues
CDN \$ 7.2billion (2020)



Corporate Offices
Toronto – ON, Canada
Framingham – MA, USA

North America

- Strongsville, Ohio
- Brunswick, Ohio
- Clinton, South Carolina
- Guadalajara, Mexico
- Guanajuato, Mexico
- San Luis Potosí, Mexico

Europe / Middle East

- East Kilbride, Scotland
- Glasgow, Scotland
- Chippenham, England
- Kfar Saba, Israel
- Tatabanya, Hungary
- Milan, Italy
- Solingen, Germany
- Munich, Germany
- Stuttgart, Germany
- Nuremberg, Germany
- Venray, Netherlands

South America

- São Paulo, Brazil

Greater China

- Suzhou
- Suzhou, McGavigan
- Hai'an
- Chongqing
- Shenzhen
- Guangzhou
- Taipei
- Kunshan
- Chengdu

ASEAN

- Singapore, Singapore
- Penang, Malaysia
- Johor, Malaysia
- Kuala Lumpur, Malaysia
- Ho Chi Minh City, Vietnam
- Hanoi, Vietnam
- Chennai, India
- Bangkok, Thailand

CCL Design Overview

5000+



Number of People

36



Manufacturing Locations

4

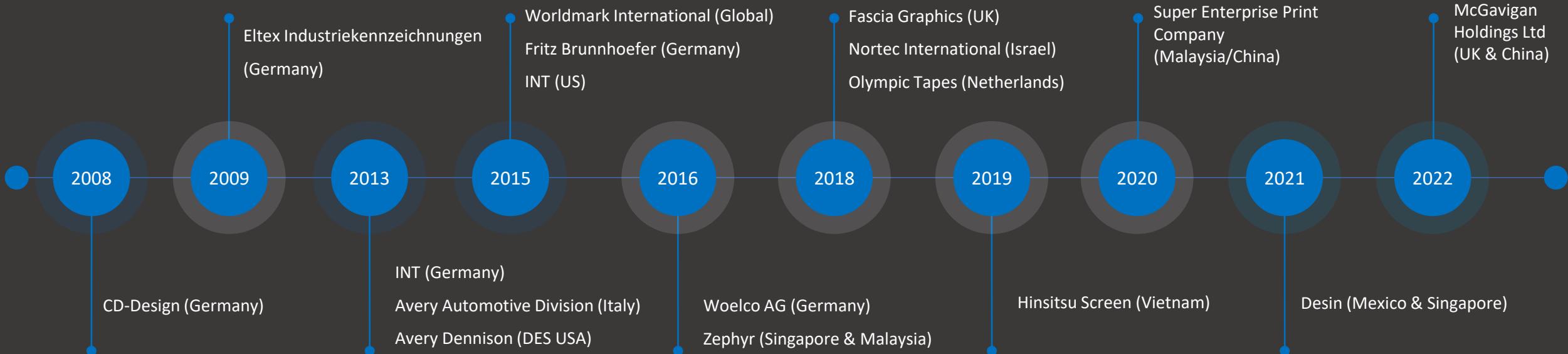


Design & Technical Centres



CCL Design Expansion

A Timeline of Acquisition-Related Growth





Manufacturing Capabilities

An extensive range of printing and conversion

CCL Design Guadalajara specialises in the design and manufacture of:

- Pressure-sensitive labels
- Precision die-cuts and functional components
- Branding and decorative products

With market-leading manufacturing capabilities we offer:

- 20+ years of industry expertise
- An extensive range of laboratory capabilities
- Custom solutions with rapid prototype development
- In-house raw materials
- Uncompromised site and product security

Flexographic Printing

- Gallus ECS340 from 4 to 8 colours with combined UV & IR drying, fast change system & in-line camera inspection.
- Fast & Flexible press for 6 colors printing UV and IR drying.
- High-Speed rotary diecutting presses for high volume blank label manufacturing.
- Used to manufacture high durability labels - substrates include paper, polyester, polypropylene, polyimide, vinyl and foam.
- Used alongside digital inkjet printing to provide flexibility in design requirements.
- Combines with thermal transfer for the printing of on-demand, variable information and data.
- Allows for double-sided printing and printing onto adhesives.
- Combines with complex in-line cutting to enable slitting, perforating, back cutting and security cuts.
- Allows labels to be supplied in rolls, sheets and fan-fold formats.



Screen Printing

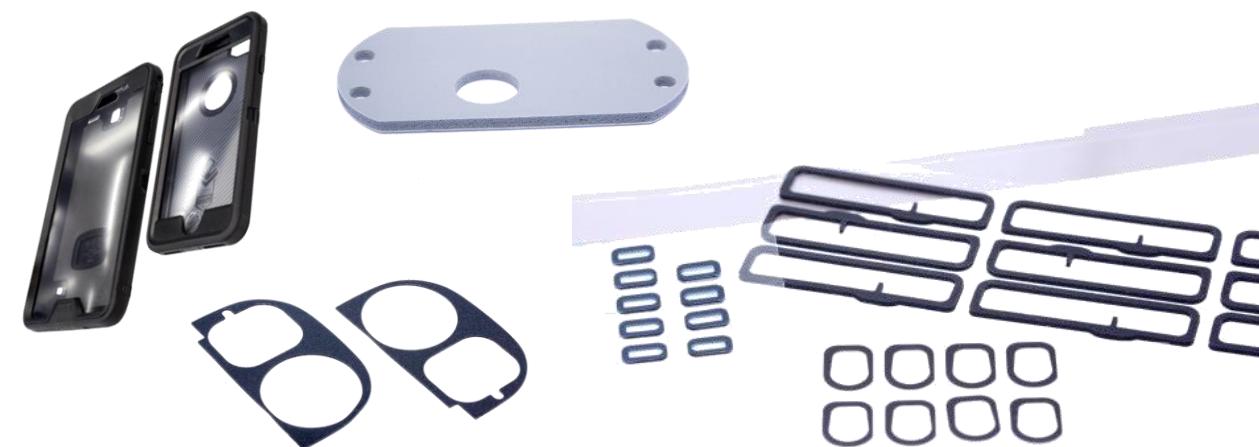
- 2 Cylinder and Flat-Bed printers with combined UV, IR, Hot Air drying and Cooling systems.
- Automatic feeding and receiving printing line.
- State-of-the-art stand-alone batch dryer for high-profile product drying.
- State-of-the-art stand-alone conveyor drying line.
- Used to manufacture high durability overlays and in-mould labels - substrates include polycarbonate, polyester and vinyl.
- In-house designed printable high performance adhesive and substrates.
- Combines with off-line cutting and lamination.
- Allows overlays to be supplied in sheets and singles format.





Labels & Graphic Overlays

- Print On-demand, Variable Data & Barcode labels.
- High Temperature Resistant Labels.
- Top Protect & Paint Protect Labels.
- Polycarbonate, Polyester Graphic Overlays & Sub-surface Nameplates, etc.
- Ultra-durable PSA Labels for Harsh Environments.
- UL & cUL Regulatory Labels.
- Battery Labels.



Rotary and Flat-Bed Die-Cutting

Rotary die-cutting allows for the production of complex, multi-layered products in a single pass.

- 6 machines from 8 stations up to 16 stations for manufacturing custom functional parts.
- Minimal operator intervention required.
- Less manual work required for complex parts.

Flat-Bed die-cutting for improved cutting profiles, thick and hard materials.

- 4 machines suited to roll, sheet and singles product presentation.
- Clamshell and Power Press technology.

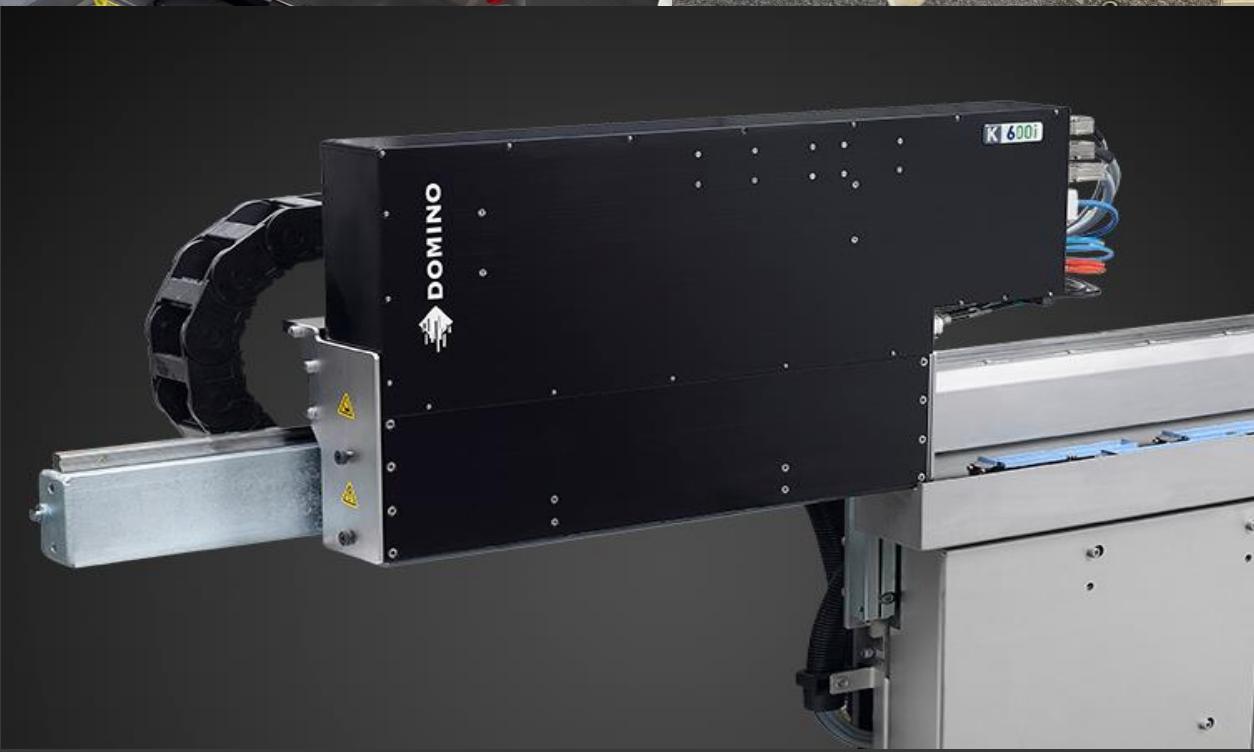
Functional Materials & Die-cuts

Key Products:

Precision die-cutting, laminating and assembly of engineered materials for a wide range of functional products and applications such as:

- Gaskets & Seals
- Bonding & Assembly
- Surface Protection
- Thermal Management
- Electrical Insulation
- EMI Shielding & Grounding
- Acoustic & Vibration Control
- Li-ion & Li Pack Battery Wraps & Cell Protection





High Speed In-Line Inspection & Inkjet Systems

- In-line workflow vision system.
- Inspects real time on press.
- Links to finishing equipment to auto-stop for defect removal.
- Checks print quality for cosmetic defects.
- In-line high quality inkjet print head.
- Variable codes and serialization printing.

Clean Room Manufacturing

- 111 m² ISO 7 – Class 10,000 Clean Room.
- Rotary Die-cutting capabilities for Medical, Electronics, Automotive and Industrial products.
- “Stick-to-skin adhesives precision die-cutting technology.
- In-line CCD camera registration for high-speed complex product constructions.
- Temperature and Humidity control.
- Personnel, Materials and Finish Good access control.
- High standards and manufacturing practices for the Medical Industry.





Rapid Prototyping Capabilities

- Router and Co2 laser cutting capabilities.
- Samples and Prototype build.
- Quick-turn around and in-house materials.
- Design and Manufacturability expertise.
- Low-cost sampling for printed label and overlays.
- In-house creation of printing plates and positive films.
- Artwork and Product Drawing in-house creation.

CCL Design Guadalajara

Laboratory Capabilities

- Xenon arc chamber UV exposure – measures resistance to UV radiation.
- Environmental Chamber - (-40 to 150°C) (heat / cold / humidity).
- Peel Tester, 90° and 180° - peel strength, tack, tensile strength.
- Weather chamber, UV and rain exposure – measures resistance to outdoor conditions.
- Shear resistance testing.
- Micro Vu, Measurements 3D – For PPAP level dimensional checks.
- Chemical and Water immersion test.
- Q-Fog equipment for saline corrosion exposure testing.
- Relative Humidity chamber testing equipment.
- Rotary abrasion, abrasion resistance – measures rub resistance.



CCL Design Guadalajara Quality Standards





CCL Design Sustainability

This is our commitment:

CCL have signed a global commitment to the New Plastics Economy led by the Ellen MacArthur Foundation to drive change through active partnerships.

The Ellen MacArthur Foundation launched in 2010 to accelerate the transition to a circular economy by following three key principles:

1. Eliminate all problematic and unnecessary plastic items.
2. Innovate to ensure that the plastics we do need are reusable, recyclable, or compostable.
3. Circulate all the plastic items we use to keep them in the economy and out of the environment.

We joined the Global Commitment of the New Plastics Economy led by the Ellen MacArthur Foundation, as part of our active partnerships towards circularity and sustainability.



Global
Commitment

Our Sustainability Commitments

- By 2025, all CCL customers will be able to choose label products and solutions that will not hinder consumer-packaged goods to be recyclable, reusable or compostable.
- CCL is committed to limit industrial waste ending up in the environment or landfills by implementing waste reduction strategies. Our goal is to eliminate all landfill from our manufacturing process by 2030 in North America and Europe and cut today's level by 90% globally by 2025. Incineration is only an acceptable alternative to landfill if it is energy generating.
- CCL will commit a fixed financial percentage of its R&D resources annually towards further development of sustainable and circular products.
- CCL will continue to work collaboratively across the plastic value chain to ensure packaging is sorted and recycled in practice at scale by developing enabling label solutions.

