



DOWCO

GROUP OF COMPANIES

Some Say It Can't Be Done - We Think Differently

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Since 1970, Dowco has grown from a three-person operation to become one of the largest fully-automated 3D Modeling and Virtual Construction Service providers in the world. Established in Burnaby, British Columbia, Canada, the company today employs more than 315 staff across six offices and five countries.

Mission Statement

Provide best in class service solutions throughout the design, detailing, fabrication and construction industry. By utilizing innovative tools in the hands of highly skilled teams, Dowco strives to maintain its position as a quality service provider for all its clients.

Our Promise

Dowco's history, heritage, and ongoing success can be explained simply: At Dowco, we believe in our service and product. We work hard to get to know our customers, to develop a connection and to understand them and their needs.

Above all else, Dowco is dedicated to bringing integrity and trust back to the design and construction industry. We strive to make every part of your experience working with us as simple and professional as possible.

We are committed to clear and unambiguous consistent language at every point of customer contact. We demonstrate our commitment daily by providing a superior quality service that our customers and partners can expect and depend on.



SERVICES WE PROVIDE

Modeling and Steel Detailing Services

- Structural Model Creation
- Fabrication Model Creation
- Structural Steel Detailing and Pre-Detailing
- Cast in Place Modeling and Detailing
- Rebar Modeling and Detailing
- 4D and 5D Model Creation
- Project Management
- Connection Design

Model-Based Estimating Services

- Early creation of 3D Structural Model
- Faster and more accurate estimating
- Accurate and early advance material ordering
- Early project communication and collaboration
- Provide owners project visualization and enable informed decision making on value engineering initiatives

Bridge Modeling and Detailing

- Dedicated, highly-experienced bridge team
- Foot bridges, highway and railway structures
- No bridge too simple or too complex
- Deliverables: 3D models; shop drawings; erection drawings; placement drawings; blocking diagrams; bills of material; FabTrol .kss and .xsr files; CNC files; CSV files; plate development details, including allowances for cutting/burning; and center of gravity information.



BIM Implementation Consulting

- Assessment of current procedures
- BIM Compliance
- Training in Model-Based Communication and Collaboration workflows
- BIM Coordination
- BIM Model Hosting

Our Clients

- | | | | |
|----------------------------------|-------------------------|----------------------------------|-----------------------|
| • ADF Group Inc | • Fluor | • Magnusson Klemencic Associates | • Tishman Speyer |
| • Aceros Corey | • Gehry Partners LLP | • Mortenson | • Thornton Tomesetti |
| • Alstom Power Systems GmbH(pic) | • Hatch International | • P.T. Freeport Indonesia | • Turner Construction |
| • Bechtel Power Corporation | • Hirschfeld Industries | • Schuff Steel | • Waiward Steel |
| • Black and Veatch | • Hoffman Construction | • Supermetal Structures Inc. | • WSP Cantor Seinuk |
| • Canam Group | • JV Driver | • Tishman Construction | • Walters Group Inc. |
| | • LPR Construction Co. | | |



Fabrication, Coordination & Management

- Assist Project Owners by establishing 'best practices and workflow management' (eg. model-based approval and communication processes).
- By creating a 3D model of the structure early in the process, it becomes possible to provide 'advance' material ordering lists (Field bolts, location lists, CNC data) and other Management tools to assist the Fabricator.

Online Industry Training

- Dowco Structural Steel Detailer Training
- Dowco Connection Design Course

Project Management Services

- A team of Project Managers capable of running your Structural Steel projects

Expert Witness

(For Claims Or Court)

- 315+ highly skilled, industry knowledge workers
- 50+ years steel industry and business experience
- Contributed expertise and applied technology on some of the most technically challenging projects in the world
- Examine whether project participants faced design and construction hurdles according to industry standards, and if they were equipped with appropriate technology and best practices

BIM EARLY INVOLVEMENT

Dowco Group of Companies have been members of Integrated Project Delivery (IPD) teams at the early stages of many design build BIM projects. With our specialized construction knowledge, effective collaboration methods and applications, we have achieved and delivered added value through true integration between design and construction.

Employing 3D application Tekla Structures, our Project Managers, Engineers, and Drafting Division can offer design/engineering, component integration, and 4D/5D modeling/construction services, all of which are essential for an efficient building model.

An additional advantage to working with Dowco is the leveraging of the "as-built" model. At the end of the project construction phase our customers are left with a complete as-built virtual model. This model can be utilized for up-grades, maintenance and facility management as well as a design reference for future projects.



Pre-Construction / Pre-Detailing Services

Dowco are strong proponents of steel detailers working directly for or with the Structural Engineer or General Contractor during the design and tender stage. Such an approach eliminates double handling and reduces the number of RFI's (requests for information) later in the project. Having detailed drawings and material reports available at the bid stage serves to reduce the risk for steel fabricators and allows them to order material and start fabrication as soon as the contract is awarded.

Summary

Dowco Consultants Ltd has assembled possibly the largest North American experienced production staff providing 'specialized' 3D engineering and detailing services. Dowco's global 24/5 production operation enables the company to compress time and create a 'blended rate'-pricing scenario, which serves to ensure competitive pricing in an increasingly competitive and globalized marketplace.

Dowco has chosen "best in industry" applications such as Tekla because of their Industry Foundation Classes (IFC) capability. The IFC is a vendor-neutral open data exchange specification that facilitates collaboration and sharing of information. Dowco also employs in-house computer technicians/programmers who continuously develop our proprietary applications, ensuring uninterrupted support and collaboration with any and all customer information exchange systems.

TEAM



Global IT-enabled Production Operations

Demographics show us that populations are aging in Canada, USA, even Asia and much of Europe. We know this only too well, as the demand for experienced steel detailers and engineering technicians is increasing. This shortage, combined with the fact that there are few technical schools in North America offering structural drafting/detailing as part of their curriculum, presents a problem for the North American steel fabricator and detailing company.

Dowco's next-generation business strategy incorporates a perfect blend of IT-enabled overseas resources combined with the largest North American-based steel detailing production team in the industry. Dowco's global production operation enables the company to create a 'blended rate'-pricing scenario, which serves to ensure competitive pricing in an increasingly competitive and globalized marketplace.

Community

Dowco proudly supports charitable initiatives in the communities where we operate through donations and sponsorship programs. We embrace the diversity of people's social needs, ideas and interests, and therefore we distribute our contributions over a broad range of initiatives, including education, health, arts and culture, community development and sports and athletics.

BC Children's Hospital Foundation * Canadian Cancer Society * Langley Memorial Hospital Foundation
Food Bank - Langley, Surrey BC, Mississauga ON * Langley Rotary Club * Spartan Foundation *
Salvation Army * Youth Sports: Soccer, Hockey and Baseball

Together Everyone Achieves More



Ewen Dobbie

Ewen Dobbie is the President and Chief Executive Officer of the Dowco Group of Companies. Ewen graduated from the University of British Columbia in 1990, beginning his full-time business career with Dowco Consultants Ltd soon after. Dowco being North America's first Tekla Structures user and Reseller, he was instrumental in the development of North America's 3D Modeling and emerging Building Information Modeling market. In the past he has managed both the technology and software sales divisions and the 3D modeling & detailing services business and is currently responsible for the global expansion of the Dowco Group's business interests.



Brian Pyper

Brian Pyper is the Chief Operating Officer of Dowco Consultants Ltd. He began his career in the structural steel industry in 1987 as an iron worker in Scotland. In 1994, Brian immigrated to Canada and completed 18 months of college to receive his diploma in structural steel detailing. Committed to the steel detailing industry, Brian is continuously increasing his knowledge in drafting, engineering and business. He earned his MBA and is a registered Project Management Professional. Brian started his steel detailing career with Dowco but went on to successfully establish a BC branch for an Alberta steel detailing company before rejoining Dowco in 2013 in his current position.



Sanjay Prasad

Sanjay joined Dowco Consultants Ltd. as a Structural Detailer in 1987 and now fulfills the role of Vice President of Special Projects. In those 30+ years he has worked as a Structural Steel Detailer, Checker, Project Manager, Software Sales Rep, Software Developer, R&D Manager, Technical Support and Trainer. In 1995 he became heavily involved with the customization of macros for Tekla Structures (formerly Xsteel) for the North American market and became one of the real Tekla power users and developers worldwide. Working on "special project" requirements, he is able to facilitate the technical environment and production processes to ensure customer issues and requirements are addressed.



Ron Cuthbert

Ron currently fulfills the role of Vice President at the Dowco Group of Companies. After receiving his BSc (1986) degree in Computer Science, Ron joined the Dowco Group in 1995. In his time with Dowco, Ron has fulfilled a diverse series of roles and duties, and now works closely with the CEO and Executive Vice President to implement plans. Ron currently oversees all administrative tasks associated with running Dowco's offshore offices, manages the IT staff, and oversees implementation of strategic plans within the Dowco Group.



Pablo Acuña

Pablo is the Managing Director at Dowco Consultants Chile. Pablo began his career with Acuña y Asociados S.A, a well-known detailing company in the industry, first starting in 1998 as an operations analyst and progressing through to company to become a partner and General Manager at the time Acuña was acquired by Dowco. Pablo was the key factor in the company's global growth, helping move the firm from a local engineering provider in Chile to an international company. Pablo is a Civil Industrial Engineer and MBA with a solid orientation to management and operations, which together with his experience as an entrepreneur provides the basis for his current challenge.



Vicente Aguirre

Vicente is the Vice President of Operations at Dowco Consultants (Chile) SpA - Acuña Steel Detailing. He began his career as a structural engineer in 1999 in Concepción, Chile, and in 2001 became part of the Acuña y Asociados team in Santiago, serving as project engineer, project manager and operations manager. He earned his MBA in 2015. His experience with Acuña includes structural engineering and steel detailing and has been in charge or supervised the execution of more than 300 projects, mainly in the industrial, mining, commercial, educational, residential and high rise sectors in the North American market.

SALES & ESTIMATING

Christine Boutet

Christine initially joined the Dowco Group of Companies in 1997 as a Sales and Account Manager in the software division selling Tekla Structures to Canadian companies. Prior to this she worked in the Structural Steel industry, first with a fabrication company, and laterally for a detailing company in fulfilling a number of roles. After a short 18-month absence from Dowco, Christine rejoined Dowco Consultants in late 2017 as a Sales and Account Manager in the area of Detailing and Pre-construction services. Her experience with fabricators, engineers and detailing companies makes her very qualified to serve the interest of our North American customers.



PRODUCTION

Robin Stobart

Robin is the Lead Project Manager at Dowco. Robin has been in the structural steel industry for more than 25 years, with a clear focus on management for the last 15 years. He started his career detailing structural steel for both commercial and industrial projects, progressing through QA/QC (ISO) to managing various sizes of projects, and substantial quantities of manpower. Robin has been a certified C-Tech for 25 years, and holds his ONC in Structural Steel from the UK.



Tony Han

Tony is Dowco's Quality Assurance Manager (QAM). Tony joined Dowco in 2003 and brings 25 years experience in the steel detailing industry to his position. During his tenure at Dowco, he has worked as a Senior Detailer, Project Manager, and Office Manager for our former Burnaby office location. Tony has worked on a variety of major projects including high rises, museums, stadiums, power plants, bridges, and schools. He works closely with all Dowco's offices to help improve quality and processes. Tony also holds a Bachelor's degree in Mechanical Engineering.



Alan Ng

Alan is one of Dowco's most experienced Project Managers. Since joining Dowco in 1991, Alan has taken the lead role in some of our most challenging and highest profile projects. Alan is a C-Tech and holds a Registered Steel Detailer certification through ASTTBC. With his commitment, expertise and project management skills, there is no project too large or too complex for Alan.



DOWCO'S PREFERRED PRODUCT POSITIONING FOR WORKFLOW MANAGEMENT



Trimble's Tekla Structures is Building Information Modeling (BIM) software that enables the creation and management of accurately detailed, highly constructible 3D structural models regardless of material or structural complexity. Tekla models can be used to cover the entire building process from conceptual design to fabrication, erection and construction management. Users of Tekla Structures since 1995, Dowco has created custom plug-ins, productivity enhancement tools and integrated data management into their daily production workflows.



AVEVA Bocad is 3D structural detailing software and one of the main alternatives to Tekla Structures. Bocad offers users outstanding professional-level control of detailing and fabrication designs as well as thorough project controls. Bocad is a mature product that has been on the market for years and was recently acquired by AVEVA, who are building a portfolio of best-in-class construction industry software. Dowco has been working directly with the Bocad team to ensure it meets the needs of the modern steel detailing industry.



DOWCO IS ALSO
PROFICIENT IN THE USE OF
AUTODESK NAVISWORKS & REVIT



Panzura is a hardware solution that allows hosting of construction models in the cloud. Deployed across all Dowco's offices, Panzura brings an enterprise-class cloud storage system with NAS-like functionality to our globally-distributed workforce. Multiple office locations share BIM models in real time for instant collaboration and simultaneous sharing of project data.



Bluebeam PDF Revu is software that provides for PDF creation, markup, editing, organizing and collaboration. Easy to use and intelligent, Bluebeam has been integrated into our proprietary drawing review, markup and management process. Automation and tracking of PDF documents dramatically reduces paper usage, lowers labour costs and increases efficiencies.

THE DOWCO GROUP OF COMPANIES

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