

MANUFACTURING INNOVATION IN

BRITISH COLUMBIA



Better products for
a better world





ANALYTIC SYSTEMS — AC BATTERY CHARGER — DELTA

In British Columbia, we make... just about everything

Thanks to vast forests and rich mineral deposits, a highly educated workforce, and a province-wide focus on research and innovation, B.C.'s manufacturing companies are making the planet and its people healthier and more productive with a vast array of manufactured products:

- ▶ we feed the world with nutritious products from our waters, farms and greenhouses;
- ▶ we make people healthier with products that fight disease, improve mobility and boost immunity;
- ▶ we build homes worldwide with a wide range of newer, stronger wood products;
- ▶ we connect people and devices with technology and satellites that move information faster and more reliably than ever before;
- ▶ we keep transportation and economies moving with clean energy systems that reduce costs as well as our reliance on fossil fuels.

As a world leader in clean energy technology, forestry, mining and food production, B.C. is proud to manufacture the products that make the world a better place to live, work and play.

FOOD AND AGRICULTURE

At home and abroad, B.C. food manufacturers feed the world with nutritious meat, poultry, seafood, fruit, vegetable and beverage products, grown using innovative systems at high tech farms and greenhouses.

- ▶ In B.C.'s mineral-rich soil, we grow more than 50 different types of fruits and vegetables that are processed whole, sliced, mixed and cooked and sold fresh, frozen or canned.
- ▶ Along 25,000 kilometres of coastline next to the Pacific Ocean and in our many rivers and lakes, B.C.'s seafood manufacturers produce hundreds of great tasting fish, shellfish and other marine products.
- ▶ The warm climate and rich soil of B.C.'s five wine regions grow more than 60 grape varietals, from which more than 200 B.C. wineries produce 15 million bottles of wines per year.
- ▶ B.C.'s 1,400 food processors take products from the farms, fields, waters and greenhouses and turn them into thousands of additional value-added products, like our famous B.C. salmon, which manufacturers turn into specialized products like steaks, fillets, lox, roe, jerky, canned salmon and many varieties of prepared meals.
- ▶ B.C. also has floriculture manufacturers that produce beautiful potted, ornamental and flowering plants.



BLUE MOUNTAIN VINEYARD AND CELLARS —
OKANAGAN FALLS



DELTA PACIFIC SEAFOODS — SMOKED SALMON — DELTA

HEALTH AND WELLNESS

B.C. manufacturers help people live longer and healthier with products and equipment that fight disease, repair the body and improve peoples' health, mobility and immunity.

- ▶ For medical, military, emergency and security personnel, we make mobile testing equipment that can quickly detect infectious diseases and portable shelters that can be used as field hospitals or emergency response centres.
- ▶ We design robotic systems that do tasks that are hazardous to people.
- ▶ We make knee braces and physiotherapy equipment to restore mobility and muscle strength.
- ▶ We make vitamins and supplements that build strong bodies and ward off disease.
- ▶ Our natural beauty and skin care products like lotions and soaps help protect, pamper and purify the body.



FORESTRY AND WOOD PRODUCTS

From logs to lumber to engineered wood products and beyond, B.C. wood manufacturers supply the world with the structural wood products they need to build strong homes and buildings, as well as the finishing and furnishing products to make those structures beautiful and comfortable.

- ▶ B.C. is one of the world's largest manufacturers of commodity wood products such as standard dimensional lumber, pulp and paper and panel boards, such as plywood and oriented strand board (OSB).
- ▶ B.C. manufacturers produce a wide array of value-added wood products such as treated lumber, engineered wood products, shakes and shingles, posts, poles, log and timber frame homes, moldings and other finished or semi-finished goods.
- ▶ Our 40 varieties of softwoods and hardwoods are also used to make non-building products such as furniture, paddles, musical instruments, toys and works of art.
- ▶ B.C.'s manufacturers are using innovation and technology to turn wood fibre into a wide range of new products such as electricity, fuels, plastics, solvents, lubricants, even food additives.

DID YOU KNOW?

- ☒ *In 2013, BC exports of machinery and equipment were worth 2.35 billion, up 4.4% compared to 2012*
- ☒ *Machinery and equipment exports to Japan continued on an increasing trend – up another 7.7% in 2013 from 2012 – and exports of machinery and equipment to India were up 12.3% in 2013.*

PHOTOS THIS PAGE:

TREE FROG SOAPS OF DISTINCTION – FRENCH LAVENDER SOAP – PRINCE RUPERT

ULTRASONIC – SONIXTOUCH WITH CAM – RICHMOND

CASCADIA WINDOWS – FIBERGLASS WINDOWS – LANGELY



BETTER PRODUCTS FOR A BETTER WORLD



GEOTECH DRILLING — HELIPORTABLE, TRACK-MOUNTED
AND TRUCK MOUNTED DRILLING RIGS — VERNON



SEALAND AVIATION — TURBO BEAVER FLIGHT INSTRUMENT
PANEL — CAMPBELL RIVER
PHOTO: BOB KOBZEY

NATURAL RESOURCES

With access to some of the world's largest mineral deposits and natural gas reserves, B.C. manufacturers are turning our raw materials into the fuels, metals, building products, machinery and fabricated products that build homes, cities and strong economies.

- ▶ We smelt, refine and shape our production of gold, silver, lead, zinc, aluminum and more than 30 industrial minerals into ingots, rods, bars, sheets, pipes and tubes.
- ▶ Our metal fabricators turn those primary products into building and structural products like bridges, doors, windows, wire, pipes, tools, nuts and bolts.
- ▶ We fabricate boilers, tanks and containers, along with the machinery and equipment used in mines, sawmills, agriculture and processing plants.
- ▶ We also produce a wide range of non-metallic mineral building products like cement, concrete, gypsum, clay and glass.
- ▶ B.C. manufacturers convert natural gas into products like: clean diesel, naphtha and jet fuel, and ammonia for fertilizer production.

TRANSPORTATION

From private to public transportation, B.C. manufacturers keep people and economies moving with vehicles, equipment and clean energy systems that make air, water, rail and road travel more efficient, affordable and climate friendly than ever before.

- ▶ B.C.'s boat and shipbuilding industry makes everything from aluminum boats, luxury yachts and sailboats, to polar icebreakers, coast guard ships and commercial ferries.
- ▶ B.C. manufacturers make parts, tools and equipment for fixed wing, helicopter and unmanned aircraft.
- ▶ We build communications and navigation systems for satellites and the aerospace sector.
- ▶ We make railway bridges, supplies, equipment and rapid transit commuter cars to move people and freight.
- ▶ We make hydrogen fuel cells for buses, recreational vehicle accessories, camping trailers and tour bus interiors so people can travel comfortably and efficiently between great cities and the great outdoors.
- ▶ To keep these products moving with less greenhouse gas emissions, we manufacture state-of-the-art electrical systems, natural gas engines, lithium-ion battery systems and hydrogen fuel cells and fuelling stations.

CLEAN ENERGY

By manufacturing energy systems that harness the clean power of the sun, wind, hydrogen, tides, rivers, geothermal heat and biomass, B.C. companies are reducing harmful emissions by helping eliminate the world's dependence on fossil fuels.

- ▶ B.C. makes wood pellets and biomass gasification systems that use wood waste to generate clean heat and electricity.
- ▶ We make scalable wind turbines for homeowners, businesses, and institutions.
- ▶ We make solar powered street lights that operate without grid access, or utility bills.
- ▶ We manufacture geothermal exchange systems, as well as wave energy systems that use ocean buoys to run zero-emission electricity turbines onshore.
- ▶ B.C.-made clean energy fuel cells are used to power telecom networks, forklifts, power generators and bus fleets around the world.



ENDURANCE WIND POWER – TURBINE ASSEMBLY – SURREY

ENVIRONMENTAL STEWARDSHIP

Around the world, B.C. companies protect the environment with products that tackle natural disasters like forest fires and issues like pollution, waste and contamination.

- ▶ Our ground and air firefighting equipment helps save lives and minimize the damage caused by structure and forest fires.
- ▶ We protect oceans, rivers, lakes and coastlines by manufacturing state-of-the-art skimmers, rapid deployment systems and containment booms that combat oil spills.
- ▶ We manufacture truck and train dumpers, aeration tanks, hoppers, conveyor systems and compactors that help transport, treat, compact and minimize waste.
- ▶ We make wastewater technology that turns municipal and industrial wastewater sludge into renewable biogas energy.
- ▶ We make desalination systems that use solar and waste heat to turn saltwater and wastewater into the earth's most precious resource: potable water.
- ▶ We help eliminate the need for landfills with solid waste gasification systems that decompose municipal and industrial waste in a way that generates heat and energy and recovers valuable metals like copper, aluminium and gold.

DID YOU KNOW?

☑ *B.C. is the only province that has less than 50% of all its exports going to the U.S.*



SALTWORKS – SALTMAKER – VANCOUVER

DID YOU KNOW?

- ☒ *B.C. has 12,000 manufacturing companies which support 164,000 direct jobs, \$7.9 billion in wages and represent 7% of all B.C. jobs.*
- ☒ *Manufacturers represent 42.1 per cent of all private sector research and development.*

CELEBRATING EXCELLENCE: BC EXPORT AWARDS

Each year, the Canadian Manufacturers and Exporters recognizes superior innovation and outstanding achievement by leading B.C. companies, including these manufacturers honoured at the 2013 B.C. Export Awards:

ADVANCING TECHNOLOGY & INNOVATION AWARD

Alpha Technologies Ltd. is an established leader in the design and manufacture of powering solutions for the telecom, CATV, traffic, security, and industrial and renewable energy industries.

CONSUMER PRODUCTS AWARD

Nii Northern International, Inc. is a privately-owned, market-leading designer, manufacturer, marketer and distributor of consumer lighting products including patented flameless candles and residential-use outdoor lighting products.

SUSTAINABILITY AWARD

Endurance Wind Power is a Surrey based wind turbine manufacturer that specializes in 50kW and 225kW wind turbines designed specifically for distributed wind power applications. Their line of modern, induction-based wind turbines brings efficient, reliable, safe and quiet, renewable energy.

MANUFACTURED PRODUCTS AWARD

WhiteWater West Industries specializes in waterslides and rides, AquaPlay™ multi-level play structures, wave-generating equipment, FlowRider® stationary surfing machines and Interactive Attractions like AquaCourse™ and Family Adventure Parks. Their products can be found in indoor and outdoor waterparks, destination hotels and resorts, amusement parks, cruise ships, specialty markets and municipal aquatic facilities worldwide.

NATURAL RESOURCES AWARD

Paper Excellence provides cellulose based products at the lowest possible cost. Headquartered in Richmond, they have close to 2 million tonnes of pulp production capacity, 550,000 tonnes of paper production capacity through six mills in Canada, two mills in France and one paper mill in Germany.

NEW EXPORTER AWARD

dPoint Technologies Inc. is a clean energy technology company that develops membrane materials and energy recovery ventilator (ERV) cores that reduce the energy consumption and improve indoor air quality in commercial, residential and industrial buildings. dPoint boasts product sales throughout North America, Europe and Asia to some of the leading HVAC manufacturers around the globe.

PREMIER'S AWARD FOR JOB CREATION

Pinnacle Renewable Energy Group is the longest established pellet producer in Western Canada. Pinnacle produces a variety of products including softwood pellet fuel, animal bedding and natural sorbent. They also produce custom products for companies in their packaging products.

MANUFACTURING CONNECTIONS

GENERAL LINKS

*Business Council of British Columbia
Canadian Manufacturers & Exporters, BC Division
Trade and Invest BC*

FOOD AND AGRICULTURE

*BC Agriculture Council
BC Dairy Association
BC Food Processors Association
BC Fruit Growers' Association
BC Greenhouse Growers Association
British Columbia Ministry of Agriculture
BC Salmon Farmers Association
BC Seafood
BC Shellfish Growers Association
BC Grape Growers Association
BC Wine Institute
United Flower Growers Co-operative Association*

FORESTRY AND WOOD PRODUCTS

*Architectural Woodwork Manufacturers Association of Canada
BC Wood
Canadian Hardwood Plywood and Veneer Association
Council of Forest Industries
Forest Products Association of Canada
Wood Enterprise Coalition
WoodSourceBC*

NATURAL RESOURCES

*The British Columbia Stone, Sand & Gravel Association
Canadian Association of Petroleum Producers
Coal Association of Canada
Diamond Manufacturers Association of Canada
Mining Association of BC*

TECHNOLOGY

*BC Environment Industry Association
BC Innovation Council
BC Technology Industry Association
Canadian Hydrogen and Fuel Cell Association
Life Sciences British Columbia*

TRANSPORTATION

*Aerospace Industry Association of BC
Aerospace Industries Association of Canada
Automotive Industries Association of Canada
Automotive Parts Manufacturers' Association
BC Aviation Council
Canadian Association of Railway Suppliers
National Marine Manufacturers Association
Pacific Coast Shipbuilders Association*

COVER PHOTOS:

CAMPION – ALLANTE 925I MC – KELOWNA

OCEANWORKS INTERNATIONAL – SUBSEA PRESSURIZED
RESCUE MODULE SYSTEM – BURNABY

STRUCTURLAM PRODUCTS LP-GLULAM BEAMS – PENTICTON

GRANVILLE ISLAND BREWERY – BEER – VANCOUVER

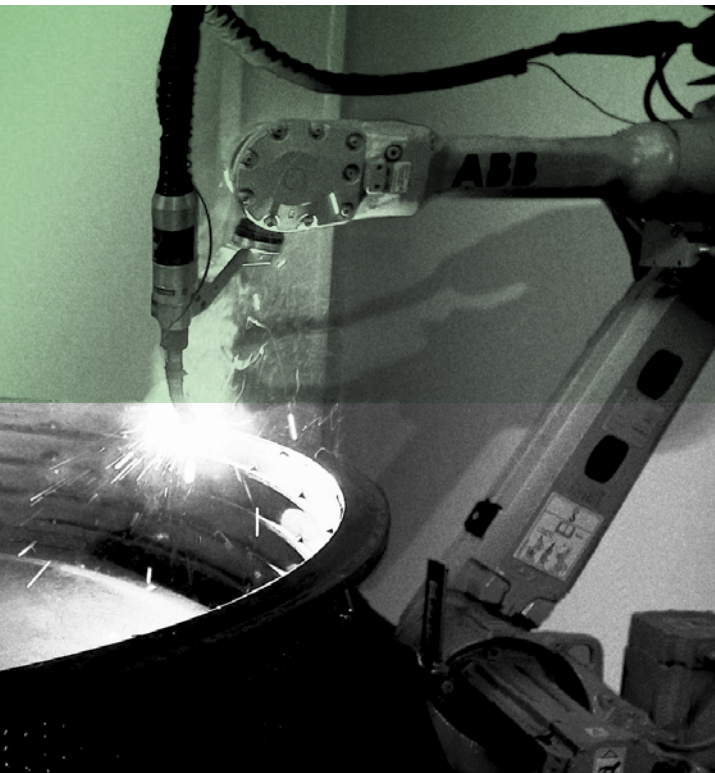
BACK COVER PHOTOS:

BI PURE WATER – WATER FILTRATION UNIT – SURREY

EARTH FIRE ENERGY – GEOTHERMAL HDPE GROUND
LOOPS – PRINCE GEORGE

WILLIAMS AND WHITE ROBOTIC ARM – BURNABY

AGRESSIVE TUBE BENDING – ROLLER COASTER
TRACK – SURREY



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