

Columbia

COMPLETE CONCRETE PRODUCTS SOLUTIONS & SUPPORT



WWW.COLUMBIAMACHINE.COM

TABLE OF CONTENTS

Vision & Mission	2
Our Heritage	3
The Concrete Products Production Plant Process	4
Concrete Products Production Plant Layouts	6
Batching & Mixing Technology	8
Columbia Vibration Technology – CVT	10
Pallet Handling	12
Cubing Solutions	13
Specialty Equipment	14
Molds	15
Customer Training	16
Product Applications	17

Every Machine You Need

We manufacture machines for every aspect of concrete products production. Ruggedly built, precisely engineered, adaptable to any environment, our machines work as hard as you do to create valuable, profit-driven products year after year. It's how we've set the standard for over 75 years.

With our on-call support available 24 hours a day, 7 days a week; a range of training classes to help you learn to maintain and repair your machines; and a reputation for creating the hardest working, toughest machines in the industry; you can rest assured that you'll get the best machines on the market and the support and reliability you need to produce top-of-the-line concrete products.

VISION & MISSION



Vision

We will be the preferred supplier of engineered product solutions in the targeted markets we serve. We will provide exceptional customer value through strategic marketing, innovative product development and unparalleled customer service.

Mission

We are committed to recognized leadership in serving targeted segments of the Concrete Products, Material Handling and Manufacturing Services Industries.

We will “always” see our business through “the eyes of our customers,” and provide them with superior solutions through innovation, quality, reliability and continuous improvement.

We will leverage the expertise, product knowledge and technology of our business units to better serve our current and future customers.

Our core competencies will be Marketing, Product Development, Manufacturing Technology and Customer Service.

We value safety, integrity, trust, fairness, professionalism and teamwork in relationships with our customers, employees, business partners, suppliers and shareholders.

We respect our legacy and reputation within our communities and global markets.

We strongly encourage personal growth and the involvement of all employees in achieving Company goals.

We will secure our future through strategic investments and profitable growth.

OUR HERITAGE



Columbia Machine is one of the world's leading manufacturers of concrete products equipment, serving customers in over 100 countries. From mixing and batching to automatic cubing and splitting, Columbia builds a complete line of equipment to outfit your entire concrete products plant.

In 1937, an ambitious 23-year-old named Fred Neth, Sr. borrowed \$800 to open a small shop, Columbia Forge and Machine Works, on Main Street in Vancouver, Washington. Columbia tackled a variety of jobs at the beginning, including repairing the primitive block machines of the time. While learning the intricacies of the manually operated block machines, Fred decided that Columbia could design and build a better machine.

In 1945, Columbia pioneered and built a hydraulically operated machine that would semi automatically produce two 8x4x12-inch blocks at a time - an industry first. Shortly thereafter, Columbia built the first hydraulic machine to make two standard 8x8x16-inch blocks. Because of the precision and quality of blocks these machines could easily produce, the building public accepted the new Columbia block machines enthusiastically.

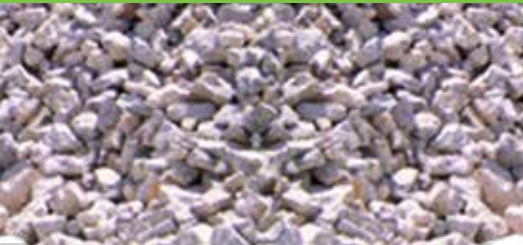
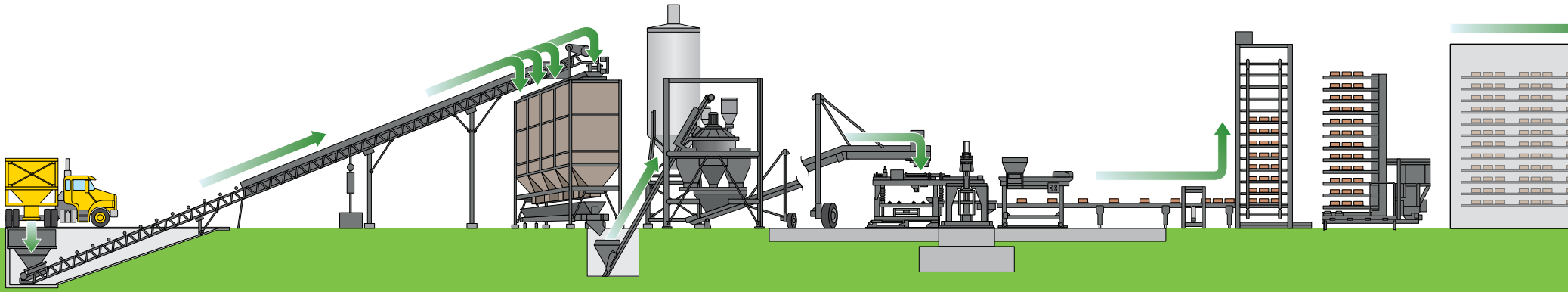
Over the next several years, Columbia continued to perfect the block machine. We began engineering and building equipment to handle the upstream aggregates and downstream products. In 1955, we moved to our present location on Grand Boulevard in Vancouver, where we were incorporated as Columbia Machine, Inc. By 1957, we had established a firm position as a leading manufacturer in the USA, and began expanding our market across the globe. Today, Columbia is recognized in over 100 countries on six continents as the leader in quality, innovation, durability and customer service, including North America, Latin America and South America, Africa, Europe, the Middle East, India, China, the Pacific Rim and Canada.

We pioneered the first semi-automatic, hydraulically operated block machine over 50 years ago. Today, we offer the most versatile, innovative concrete products equipment in the industry. From block machines to molds for pavers, retaining walls, automation and software equipment, batching and mixing machines, we have the equipment you need for any concrete solution. No other concrete products equipment can match the versatility and quality of Columbia. We help our customers convert raw materials into profits with industry-leading technology and unmatched durability.

Our experienced global sales and service network, along with our conveniently located parts and training facilities, provide unsurpassed world-class support. Our team of professionals can design a plant to fit your production needs, as well as provide installation support and training for your plant personnel. And, with our after-hours emergency parts and service hotline, we're here to help anytime, day or night.

At Columbia, we're more than a manufacturer, we're your partner. Together, we build single- and multi-family housing, schools, hospitals, industrial buildings, warehouses, retail stores, correctional facilities, roads, airports, ports, walkways, patios, driveways, earth retainers, and a whole lot more. All these projects begin with quality concrete products, and quality concrete products begin with Columbia concrete products machines that can do it all.

PLANT PROCESS



Raw Materials

Basic raw materials are used to create concrete products, including cement, sand, aggregate and water.

Batching & Mixing

Raw materials are mixed together. If colored concrete products are desired, color pigments are added during this stage in the process.

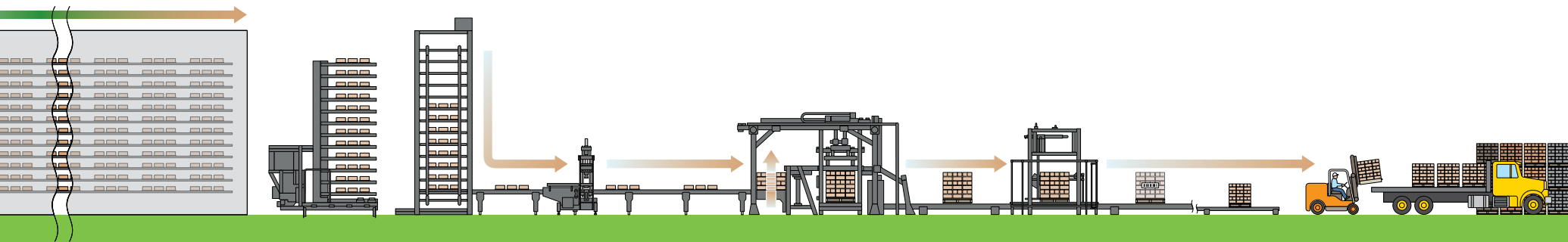
Concrete Products Machine

These machines form products onto production pallets. Different molds are used to produce a wide variety of product types. Production rates vary depending on machine specifications and pallet sizes.

Pallet Handling

These machines take pallets of “green”, or uncured, product to the kilns to be cured.

* Ask about our complete bag line solutions



Kilns & Curing

Products are cured in the kilns until they are properly hardened. They are then removed by pallet handling equipment and transported to the next step in the process.

Value-Added Systems

Machines at this stage in the plant process can split, tumble or grind products to give them a unique visual appeal.

Cubing Systems

Cubing equipment bundles finished products together into easy to transport cubes and wraps them for safe delivery.

Finished Products

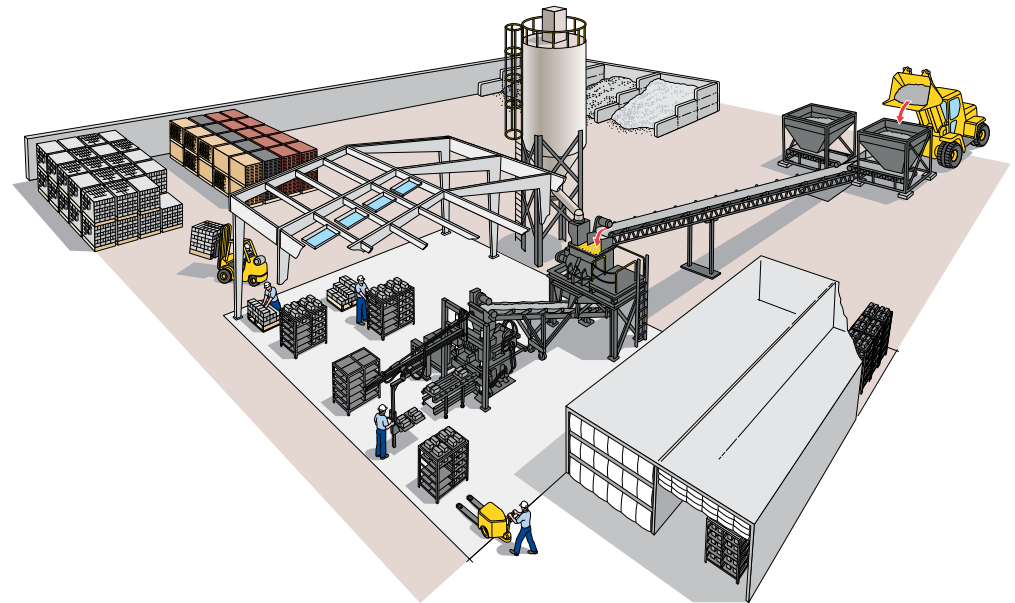
Finished products are delivered to job sites all over the world for use in a range of projects.

CONCRETE PRODUCTS PRODUCTION PLANTS

Model 21 / 22 / 16

with MANUAL OFFBEARER

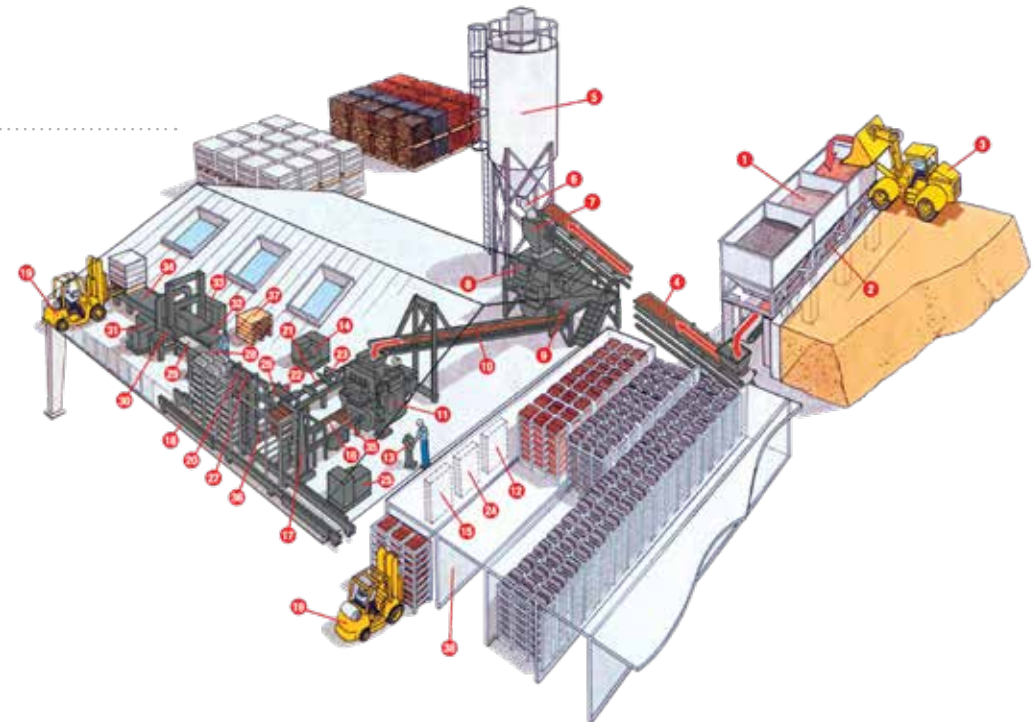
When you need the top of the line production quality but don't have the room or need for a large plant, these plants may be your perfect choice. It's smaller pallet produces exceptional concrete products within a lower budget. It's steady, profitable output with the exceptional engineering you expect from Columbia Machine.



22 / 16 / 1600

with RACK LOADER/UNLOADER SYSTEM (UL)

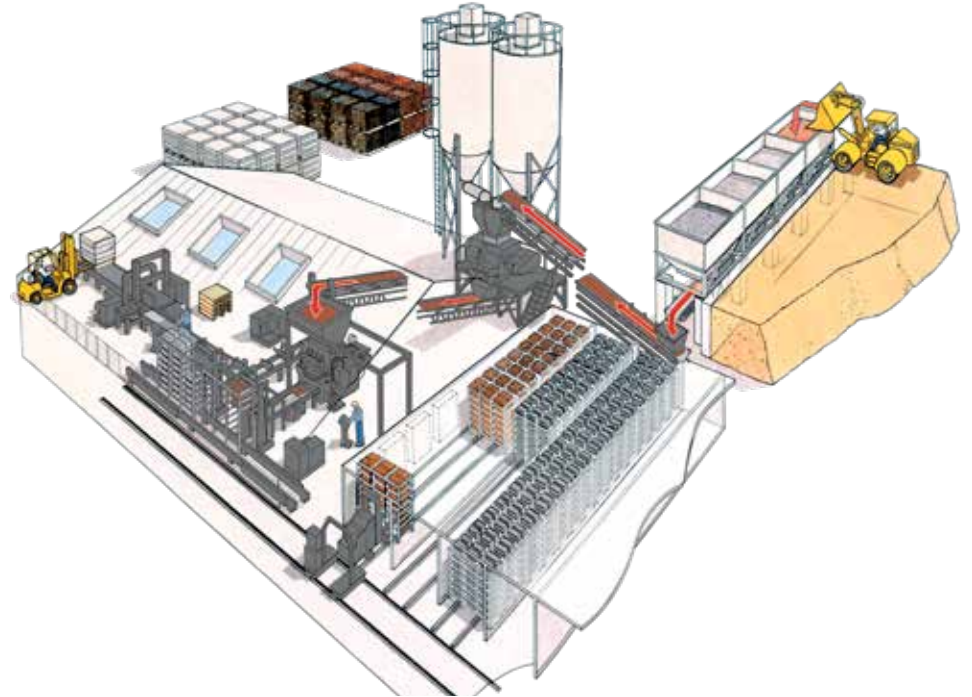
With versatility to ensure your profits and the rugged engineering you expect from Columbia Machine, these plants delivers beautiful pavers, blocks, retaining wall units and more, all on a slightly smaller pallet than our large or medium sized machines. Field tested in the most demanding environments to live up to our reputation.



1600 / CPM+ 40

with TRAC-A-RAC (TAR)

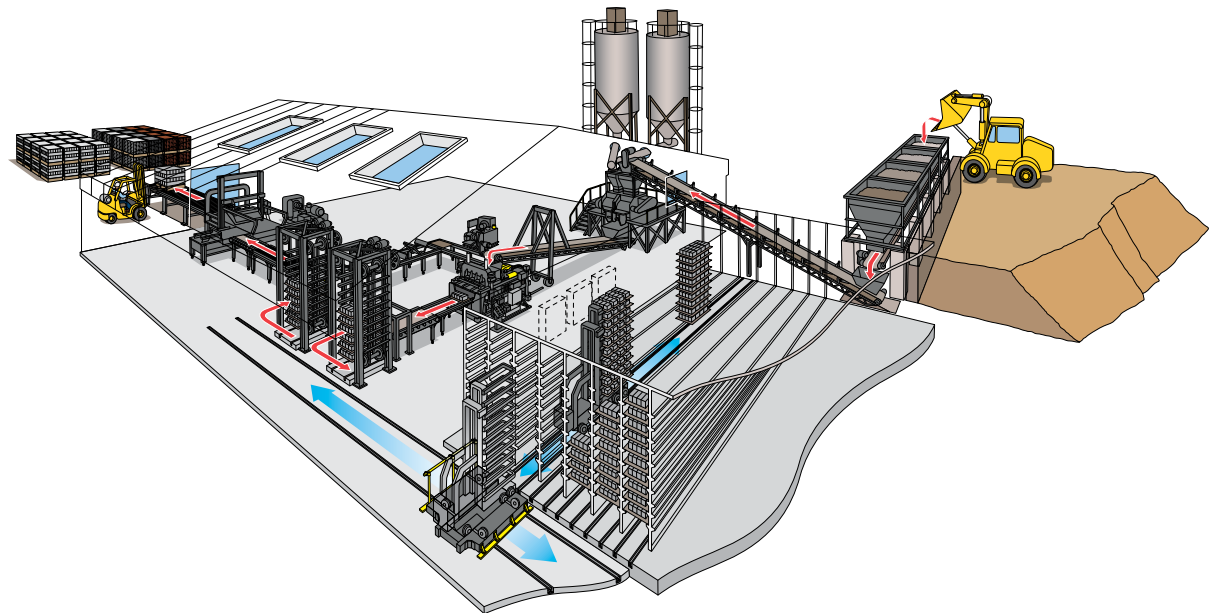
Like all our machines, the 1600 and CPM+ 40 are built to operate smoothly and produce consistent, versatile output under the harshest terrains, allowing our customers to create concrete products in over 100 countries around the world. They utilize Columbia Vibration Technology, a true vertical vibration system, to yield better compaction and more consistent aggregate dispersion.



CPM+ 40 / 50 / 60

with PALLET TRANSPORTER SYSTEM (PTS)

We created this series of machines, after years of research and development, to be the core component of a medium- to large-scale operation. The CPM+ series continues to meet the demands of our customers who value superior products and consistent, reliable output for years to come.



BATCHING & MIXING TECHNOLOGY

Plant designs for any application. Big, small and everything in between.

Whether your vision is a large automated plant, a small bagging operation or a specialty concrete products plant, our industry-leading team of engineers (applications, mechanical, electrical, software) will bring your concept to reality. Tell us what you want and we will help you get there.



Columbia equipment is specifically designed to reduce installation costs and get your plant producing as quickly as possible.



Conveyors and other pieces of equipment are shipped pre-assembled as much as possible to reduce installation time.



Electrical panels, assembled in a UL panel shop and marked with UL labels, are shipped pre-wired to terminal strips to reduce wiring time and cost.




From Your Vision to Operational Plant

Dedicated project management, from on site assistance through turnkey installations. Our services are tailored to your specific job requirements.

At Columbia, our job doesn't end after we've delivered your equipment. Getting your plant up and producing products as fast as possible is the next and perhaps most important step in the process. To do this, Columbia provides a complete line of project and construction management to ease you through the complexities of your project.



Features designed to reduce installation time and cost.

-  *User friendly mechanical installation guides and electrical diagrams*
-  *Innovative mechanical designs ensure easy installation and start up*
-  *On-call, dedicated service staff to assist you during installation.*

Quality Mixers

At the heart of every plant is the concrete mixer. Columbia offers a full line of mixing options to serve your specific plant needs. All are designed and built to the highest standards of durability and dependability. Low maintenance costs, ease of use, performance enhancing options and concrete repeatability are the core characteristics of every mixer we sell.

Planetary Mixers

The Techmatik planetary mixers deliver a fast, high shear, counter-current mixing action. Techmatik's durable machine design features a heavy-duty, planetary gear box which is made and assembled at Techmatik's factory. The mixer is ideal for heavy-duty applications where high strength, self-cleaning discharge (color applications) and fast cycle times are required. The Techmatik line comes in a large number of capacities, as well as the industries largest selection of tailored options.



Rotating Pan Mixers

The Columbia Rotating Pan Mixer offers a cost effective, counter-current mixing action with multiple agitation stars; mixing at different velocities. The mixer comes with a number of agitator designs specifically supplied for the type of concrete that is to be produced. A long term standard in pipe applications, the self-sealing discharge door makes it a perfect mixer for the more technical and fluid SCC mixes.



Twin-Shaft Mixers

Our twin-shaft mixers feature a very fast, compulsory mixing action well suited for high volume concrete applications where volume, concrete strength and speed are paramount in the plant design. The twin-shaft mixers can handle a large variance of aggregate sizes up to a couple of inches in diameter. These mixers come with a number of options including a high pressure washout system.



Ribbon Blade Mixers

The Columbia Ribbon Blade mixers supply an excellent blend of concrete through a time tested and proven folding mixing action. The Columbia mixers offer a cost effective and durable mixer design with a proven 25 year lifespan. The Columbia mixers are easy to operate, easy to maintain and yield excellent concrete for a large range of products.



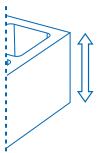
COLUMBIA VIBRATION TECHNOLOGY

CVT

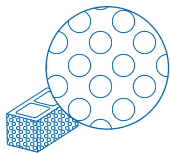
Columbia Vibration Technology



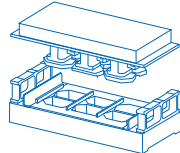
Precision Height Control



Even Product Density



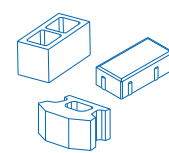
Extended Mold Life



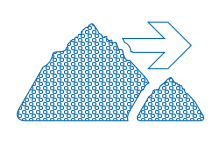
Energy Efficiency



Versatility in Products



Reduced Cement Usage



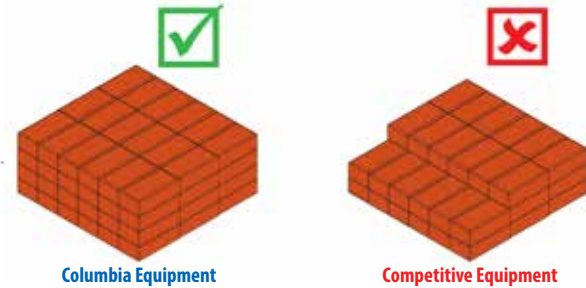
Columbia's patented vibration technology, CVT, combines 75 years of innovative engineering and field proven designs with industry leading manufacturing capabilities. CVT enables producers to create the highest quality and widest range of products in the world.

Simply put, CVT Makes You Money

Here's how: 2X Extended Mold Life

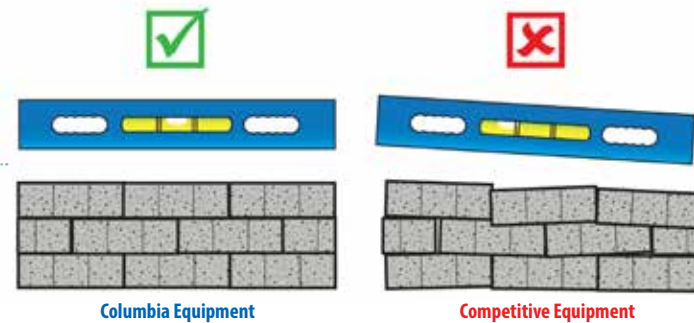
The true vertical vibration provided by CVT means reduced friction between the shoes and the mold compared to other mold vibration systems. Less mold wear means longer mold life and more money in your pocket.

Same materials, same mix designs, same product... same overall general conditions, but dramatically different results.



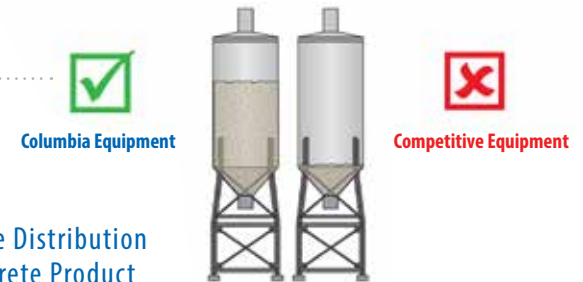
Precision Height Control

CVT offers producers the ability to control the height of their product like no other technology. This precision allows the mason or landscape contractor to lay product faster and more enjoyably in comparison to working with uneven products – but it also means less material waste for you as the producer. Less waste means more money saved.



Reduced Cement Usage

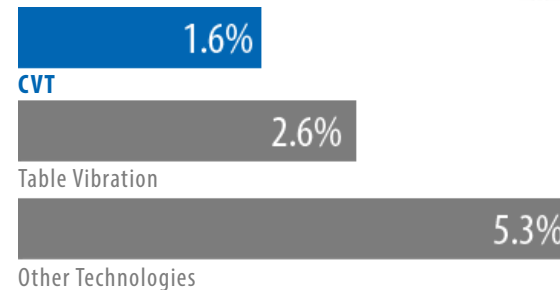
With CVT the mold vibration forces are completely uniform top to bottom and across the production pallet. That provides equal compaction of material throughout the entire product and the ability to use less cement compared to other vibration systems.



Uniform Density

An independent lab study proves that utilizing CVT provides up to 70% more uniform product density from top-to-bottom and across the production pallet when producing concrete products on a Columbia Machine. This not only makes for a stronger product, but demonstrates the cement savings CVT offers. Less cement usage means less cost, which ultimately leads to higher profits.

Total Variation in Aggregate Distribution from Top to Bottom of Concrete Product



PALLET HANDLING TECHNOLOGY

We lead the market in pallet transport systems, providing the most advanced, safest and most flexible means for moving green and cured product within your plant.



Manual Offbearer

The Manual Offbearer performs a two-fold function. First, the Offbearer aids in the manual transport of loaded pallets with uncured block from the green product rollaway to the curing rack. Second, the Offbearer aids in the transport of empty or stripped pallets from the pallet racks to the pallet return conveyor, located directly below the green product rollaway.

UL

LOADER / UNLOADER

Designed and engineered to adapt to most concrete products machines, our Rack Loader and Unloader provides economical, automated product handling to your operation. You can transport racks to kilns with a forklift or the Columbia Trac-a-Rac system.

TRAC-A-RAC

This system offers you an efficient, profitable alternative to any kiln system on the market today. With this single piece of equipment, you can bridge and automate the gap between your present rack loader/unloader system and your kilns. You will no longer need a person in or around the kilns.

PTS

PALLET TRANSPORT SYSTEM

The state-of-the-art Columbia Pallet Transporter System safely transports green product to the kiln and cured products to the cubing operation, all without metal racks. Its flexible design works for smaller production machines up to large pallet plants.

Auto Rack

Reduce downtime and keep pace with high-speed production lines using this smooth, gentle operating system. Its versatile design and scalable large capacity means you can serve multiple block machines simultaneously while maintaining throughput.

CUBING SOLUTIONS

We have a wide variety of cubers suitable for every sized operation. Engineered for high productivity, low energy usage, and heavy-duty moving, each of our cubers will help you lower operating costs for years to come.



PSC PLATE

Heavy-duty construction and an energy-efficient design help this state-of-the-art cubing system maintain a high productivity rate while lowering operating costs.



CSC CLAMP

Columbia cubers offer a variety of ways to stack cured product with flexible configurations suitable for any plant style.



RSC ROBOTIC

A single robotic cuber can cube from multiple lines simultaneously while handling each cured product gently.

SPECIALTY EQUIPMENT

Architects and engineers require concrete products that are diverse in size, shape and type. Applications are restricted only by the designer's imagination and the product's availability. The versatility of Columbia equipment makes the production of specialty concrete products easy and economical.



Tumblers OFFLINE & INLINE

Our Tumblers will add a new dimension to your products and your operation. Initial investment is at a competitive price and with the long-lasting, heavy-duty quality you expect from all Columbia Machine products.



Splitters

Choose the right sized splitter for your plant and add a new capability to your operation with a wider variety of concrete products.



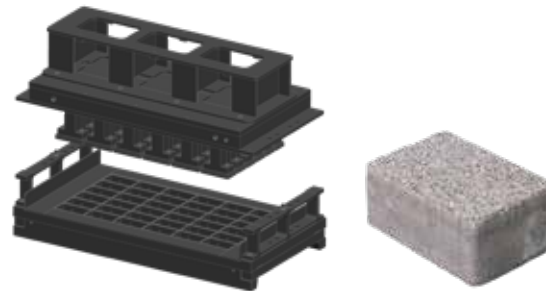


Block / CMU



Used for decades in all types of construction, the traditional concrete block has evolved to new aesthetic levels. The production of concrete blocks today – with its great variety of forms, sizes, textures and colors – allows concrete block manufacturers, architects, engineers and builders to combine them to achieve spectacular visual effects with significantly lower costs than other building products.

Paver



Their aesthetic beauty, variety of colors, wear resistance and easy maintenance make concrete pavers a practical solution for building streets, sidewalks, patios and driveways. You'll find applications using pavers produced on Columbia equipment everywhere from the Hong Kong Airport to the Sydney Summer Olympics complex. Producing pavers is an excellent and profitable addition to any concrete products manufacturing plant.

Retaining Wall / SRW



Used for decorative and practical purposes, Segmental Retaining Wall units (SRW) come in a variety of sizes, shapes and finishes, and are used in both commercial and residential applications. Virtually any type of design can be produced using Columbia Machine equipment, giving you the flexibility to meet market needs quickly and easily.

CUSTOMER TRAINING



Columbia Machine technical schools offer a variety of training courses for operators, plant managers and owners. Areas covered include basic block machine operation and machine maintenance, basic electrical to advanced electronics (PLC), and understanding the mixing/batching process. Columbia's technical courses are designed to improve the efficiency of every producer's workforce. Whether at our training center in Vancouver, Washington or through an in-plant course, a Columbia technical school will improve your plant's productivity.

In-Plant / On-Site Training

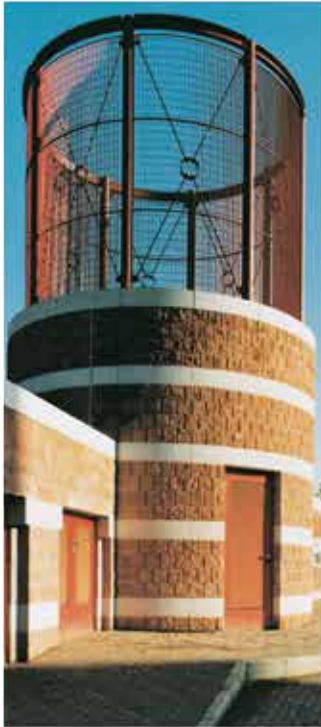
In-plant schools are a great way for your operators to get specialized training on the very equipment they run every day. Specific courses can be tailored for your equipment, including all CPM machines, Model 22, 16, and 1600 block machines, pallet handling systems, cubers, mixers, and all peripheral equipment.

Classroom Education

Columbia Machine technical schools offer a variety of training courses for operators, plant managers and owners. Areas covered include basic block machine operation and machine maintenance, basic electrical to advanced electronics (PLC), and understanding the mixing/batching process. Columbia's technical courses are designed to improve the efficiency of every producer's workforce.



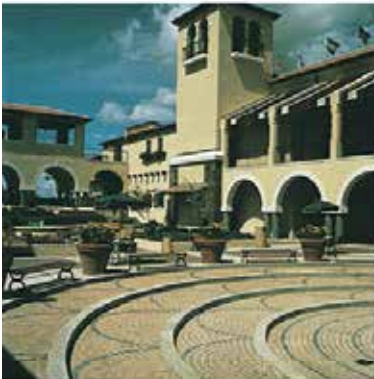
PRODUCTS AND APPLICATIONS



Pavers

Thanks to their aesthetic beauty, variety of colors, wear resistance and easy maintenance, concrete pavers are a practical solution for the construction of streets, walkways, patios and pathways.

Paver production is an excellent source of additional revenue for any concrete products production plant, given their wide range of applications and their large profit margins.



Blocks / CMU

Used for decades as an element for every kind of construction, the traditional concrete block has evolved to new levels.

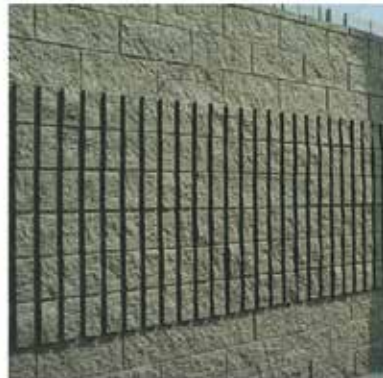
A great variety of forms, sizes, textures and colors that can be produced today allow architects, engineers and builders to combine them to achieve spectacular visual impact with lower costs than other building materials.



Split-Face / Imitation Stone

Concrete products can be produced with a rustic, stone look. They are created from a concrete block that is split using a specialty Columbia splitting machine.

Adding to their distinctive texture, combine different colors and shapes to achieve beautiful architectural shapes at a low cost.



Bricks

Concrete bricks can be produced in a variety of shapes, colors and sizes at a cost that is competitive with clay bricks, while holding great advantages over them.

Due to their high strength, minimal maintenance and dimensional uniformity, concrete bricks are a profitable segment for their producers.





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