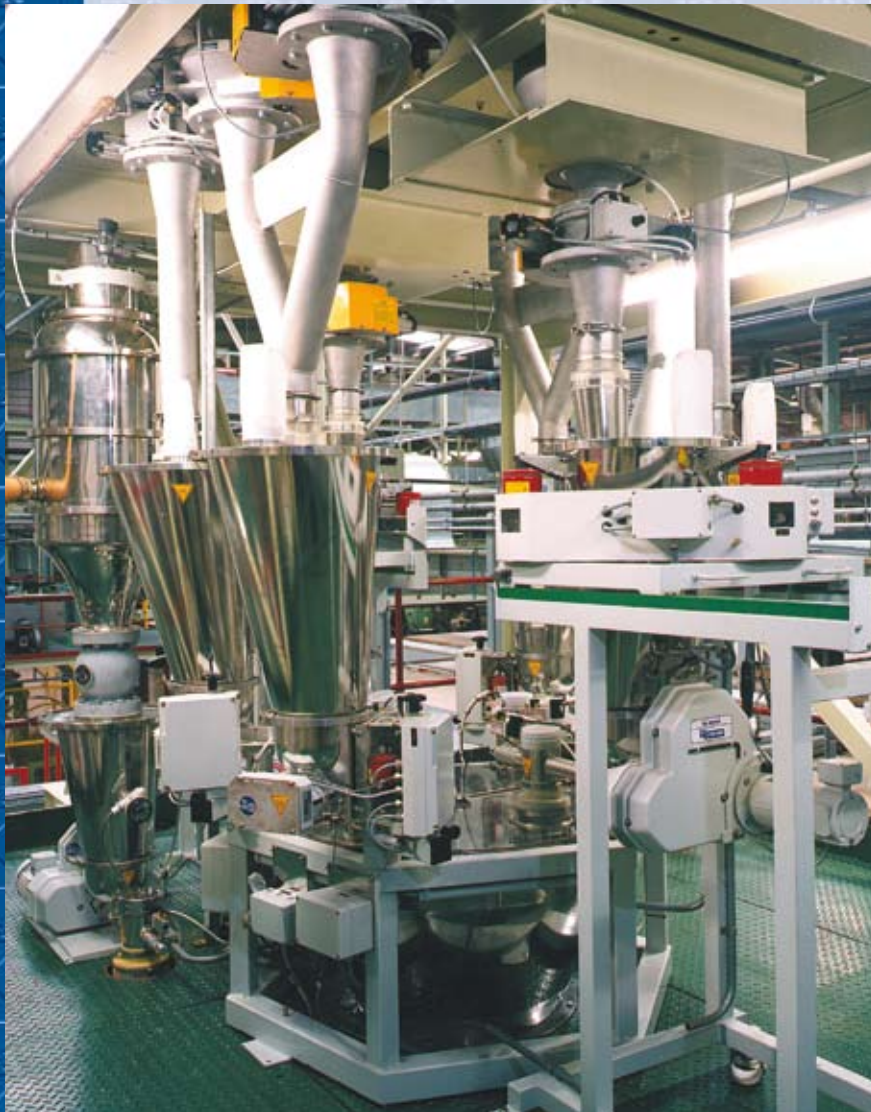


K-Tron Process Group

The Technology Leader for
Process Feeding and Conveying Equipment



K-Tron Process Group

Creating Value
for Customers,
Shareholders,
Employees and
Associates

Mission

K-Tron is a global leader in the design, production, marketing and servicing of high-quality feeders, pneumatic conveying systems and related equipment for the handling of bulk solids in a wide variety of manufacturing processes.

At K-Tron, our mission is to create value for our customers, shareholders, employees and associates by producing superior feeders, vacuum conveyors and related material processing equipment.

The Company Focus

K-Tron's focus on creating value has made it the preferred feeder company of leading manufacturers around the world. Eighty percent of the Fortune 100 industrial companies have purchased K-Tron feeders, and K-Tron is a major supplier to regional and local processors. With roots more than 100 years old, K-Tron defines the leading edge in designing, manufacturing and marketing feeders and related equipment.

A Global Presence

K-Tron is headquartered in Pitman, New Jersey USA and has more than 500 employees in the United States, Europe and the Far East. It is further represented by more than 80 sales organizations with over 100 offices in more than 60 countries around the world.

Complete Control Over Design and Manufacturing

K-Tron has complete control over the design and manufacture of its own weighing, mechanical and control systems. K-Tron holds more than 35 patents for weighing, mechanical and control technologies and their application to bulk solids handling.

Our People Guarantee Reliability and Satisfaction

K-Tron fully supports customers before and after the sale with services to help them derive full value from their equipment purchases. The company's total dedication to satisfying processors' needs has led to long-term relationships with these customers. Through its people, as much as its technology, K-Tron is able to deliver feeders and services that consistently provide a high level of performance and long-lasting value.

K-Tron Milestones

1900	1949	1972	1975	1976
Soder AG is founded in Niederlenz, Switzerland, to manufacture mills for the food industry	K-Tron (then known as Monsell) is founded in USA to manufacture pneumatic scales	K-Tron introduces the first digitally controlled belt feeder worldwide	K-Tron acquires Soder AG	K-Tron introduces the first all-digital loss-in-weight feeders

K-Tron Core Technologies



Mechanical: Materials Handling

No two process applications are the same, and K-Tron offers the widest range of materials handling solutions in the industry. All volumetric feeders, loss-in-weight feeders, weigh belts, flow meters and conveying systems are offered in a variety of configurations. Volumetric and loss-in-weight feeders are available in single and twin screw configurations or as vibratory trays and liquid or solids pumps. Weigh belts come in multiple sizes in open or closed frame configuration. Flow meters are available in multiple sizes with or without prefeed devices. Vacuum conveying systems can be self contained or central systems and filtered or nonfiltered units.

Digital Weighing: SFT Technology

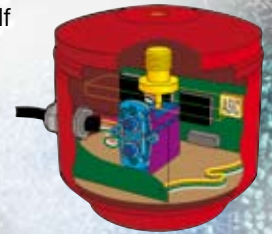
K-Tron's unique vibrating wire weighing technology is based on the fact that the resonance frequency of an oscillating wire depends on the wire tension produced when a load is applied. Force, when derived from an applied weight, is transferred mechanically to the wire. The resonant frequency of the wire is then measured to determine the weight with a resolution exceeding 1 part in 4 million.

Control: SmartConnex Architecture

K-Tron's SmartConnex concept represents a new control environment that tightly integrates the core technologies of a feeder system—mechanical design, control algorithm and weighing technology. This greatly reduces the cost of installation and daily operation, makes the system easier to use and maintain, and provides an optimum level of performance. A key component combines motor drive and control unit functions into a small box that mounts directly on the feeder. This

K-Tron Control Module (KCM) serves as the feeder's brain and controls the feeder for either batch or continuous processes.

In multi-feeder applications, SmartConnex can be used to form a network of feeders using simple field wiring techniques with superior performance.



1989

K-Tron introduces modular feeders with Smart Force Transducer weighing

1997

K-Tron acquires Hurricane Pneumatic Conveying Inc. K-Tron opens a representative office in Shanghai, China

1999

K-Tron introduces SmartConnex Control System and SFT III

2000

K-Tron acquires Colormax Ltd

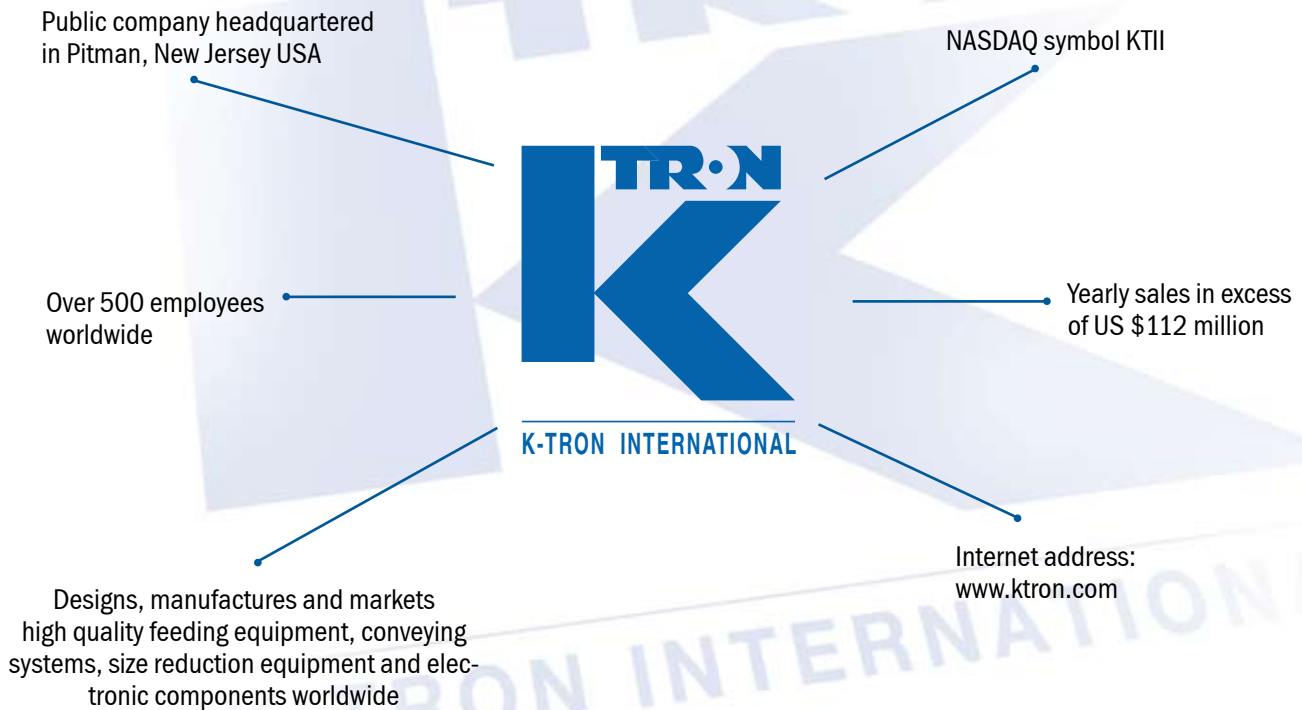
2001

K-Tron acquires Pneumatic Conveying Systems Ltd (PCS)

2003

K-Tron acquires Penn Crusher Corp. and Jeffrey Corp.

K-Tron International at a Glance

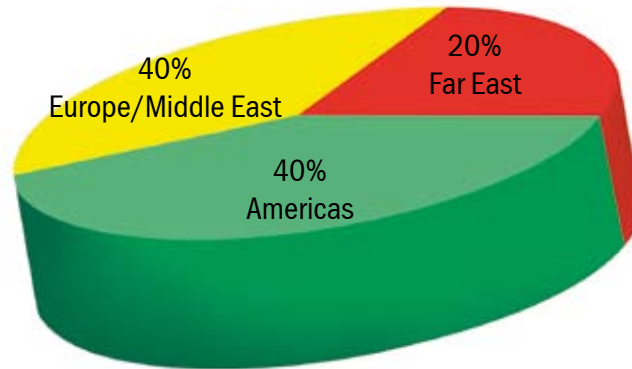


K-Tron International Family



K-Tron Process Group

Markets Served



Industries Served

- Aluminum
- Building Materials
- Chemical
- Coatings
- Compounding
- Detergents
- Filaments
- Films
- Feeds
- Food
- Hygiene Products
- Paper
- Pharmaceuticals
- Plastics
- Others

Services Provided

- Consulting and process planning
- Systems engineering including third party products
- Material tests in state-of-the-art test laboratories
- Supervision during systems installation
- Start-up and commissioning of systems
- On-site training of customer personnel
- Preventive maintenance of systems
- 24 hour spare parts and repair services
- Emergency service and 24 hour hot-line
- Retrofit of installed systems with new technology

Product Overview

Smart Volumetric
and Gravimetric
Feeders and Mass
Flow Meters for
Material Control in
Batch and Continuous
Applications

K-Tron feeders provide high-accuracy solutions to handle a wide range of ingredients – from chocolate chips to fiberglass and from floodable powders to waxy liquids. The K-Tron feeder product line includes volumetric feeders, loss-in-weight feeders, weigh belt feeders and mass flowmeters for bulk solids or liquids and related controls for continuous or batch processes. These feeders are used in the chemical, detergent, food, pharmaceutical, plastics and other industries.

Typical Applications and Feeding Solutions



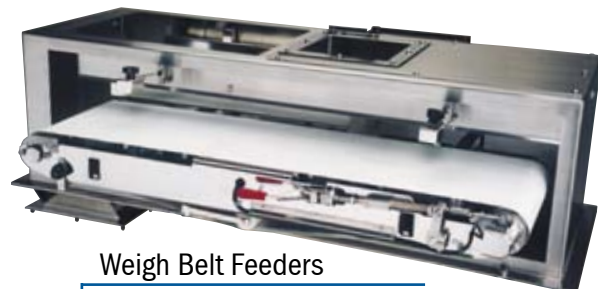
Modular Volumetric Feeders

Volumetric twin and single screw feeding of dry bulk materials when accuracy by weight is not critical.



Modular Loss-in-Weight Feeders

Gravimetric loss-in-weight feeding of dry bulk materials and liquids when accuracy by weight is critical.



Weigh Belt Feeders

Gravimetric weigh belt feeding of dry bulk materials when accuracy by weight is critical and limited headroom is available.

Plastics Extrusion

This application shows four K2 Modular loss-in-weight feeders feeding various resins and additives into a compounding extruder to produce an engineered resin used to make automotive components.



Food Processing

K-Tron K2-MLT60 loss-in-weight feeder feeding ingredients into a continuous mixing system for the manufacture of dough used in the snack food or bakery products industries.



Bulk Solids Pump Feeders

Volumetric and gravimetric positive displacement feeders for free-flowing materials.



Smart Flowmeter

Gravimetric metering of dry bulk materials.



K4G Continuous Blending System

Gravimetric loss-in-weight blending of multiple dry bulk materials when accuracy by weight is critical.



Compact Micro-Ingredient Feeders

Gravimetric low rate loss-in-weight feeding of dry bulk materials and liquids when accuracy by weight is critical.



Pharmaceutical Feeders

Volumetric and loss-in-weight twin screw feeding of dry bulk materials. Pharma feeders are designed for sanitary construction, quick disassembly and easy cleaning.

Product Overview

Self-Contained and Central Vacuum Receiving Systems for Conveying of Bulk Materials

K-Tron PCS vacuum receiving systems are the smart choice for feeder refill or other pneumatic conveying applications. For fine or dusty powders, the P-series offers compact filtered units which are ideally suited for use in the food and pharmaceutical as well as plastics and chemical industries. The patented dual cyclone design used in K-Tron PCS M-series loaders and receivers handles a wide range of materials without the need for filters required by conventional vacuum conveying systems.



M-Series Self-Contained Receivers

Filterless and filtered units with integrated vacuum pump for conveying a wide range of materials over short distances from day bins or other portable containers.

M-Series Central Receivers

Filterless and filtered units for conveying a wide range of materials over long distances from silos to the process area.

P-Series Central Receivers

Filtered units for use with powders and in sanitary applications.

User-Friendly Controls

HCU controller and HSU hand-held interface for self-contained and single central units



Foam Extrusion Manufacturer

K-Tron PCS Central Filtered Receiver is used to convey a very fine foaming agent from sack tip stations to a volumetric feeder in the process area.



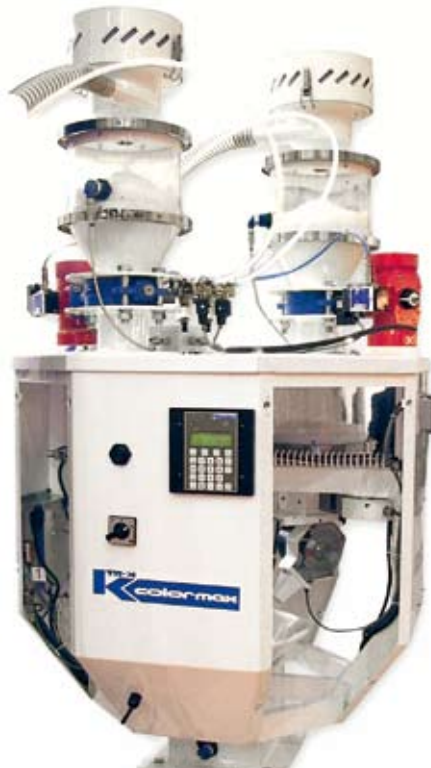
Smart Material Handling and Loading Solutions



Auxiliary Equipment for the Plastics Industry

Product Overview

K-Tron Colormax blenders feature Posimax feeders with integrated refill systems to blend two to four ingredients prior to processing. The volumetric Multiflow blender (below left) provides high accuracy for materials with consistent bulk density. In addition, the gravimetric Multiweigh blender (below right) offers control by weight and provides material usage reports and recipe control. The K-Tron Colormax line also includes vacuum loaders and volumetric feeders for plastics extrusion and molding applications.

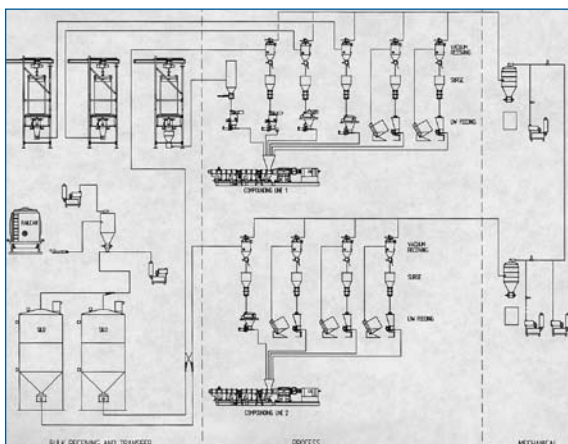




K-Tron Process Group

Smart Engineering,
Electronic Design,
Testing, Training,
Service and Support
Solutions for All
Your Material
Handling Needs

Since its founding, K-Tron has been at the forefront of smart technology for material handling applications in the process industries. K-Tron also offers smart engineering, electronic design, testing, training, service and support solutions over the life of K-Tron equipment ownership.



Systems Engineering Support

K-Tron is the logical starting point for processors in search of smart, effective solutions for bulk material handling and feeding. K-Tron engineering design support is available for single or multi-station systems designed to meet your complete application needs, including design of structure and installation.



Electronic Design

K-Tron Electronics designs, assembles and tests electronic circuit boards and electro-mechanical assemblies for K-Tron feeder and conveyor controls. K-Tron also provides automated surface mount, through-hole assembly, automated testing, engineering and development services for outside OEMs.





Testing

Selecting the right feeding or conveying equipment depends on material handling characteristics, required accuracy, rate of material throughput, data communication needs and physical constraints such as plant headroom and the processing environment. K-Tron's modern material test facilities are available at no charge to test your materials and help in making the optimal equipment selection.

Training

The K-Tron Institute provides hands-on startup, operator and maintenance training for all supplied equipment specific to your application. Training can be conducted in K-Tron classroom facilities conveniently located around the world or may be arranged on site.



Service and Parts

K-Tron maintains a worldwide network of factory-trained service engineers and parts supply centers to provide on-site solutions to keep your process up and running and minimize costly downtime. 24/7/365 technical assistance is also available to help solve customer problems.

Website

www.ktron.com provides a quick and convenient way to find information, ask a question, request a quote or order literature from K-Tron.





www.ktron.com

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