

The most innovative  
supplier of machinery  
for plastics processors.

***Value and Commitment***  
***for Three Generations***



***Dryers***

***Blenders***

***Hopper Loaders***

***Central Vacuum Conveying***

***Proportioning Valves***

***Mold Monitor***

***Color Feeders***

***Installations***



# ***Value and Commitment***

## ***for Three Generations***

### ***Corporate Mission***

Comet's corporate mission is simple and as true today as it was over 30 years ago: To provide auxiliary equipment that guarantees our customers can manufacture better products at less cost.

### ***Technology Leader***

Comet only provides equipment made from high quality stainless steel, because using the best materials to reduce your manufacturing costs never goes out of style. Stainless steel equipment lasts longer, cleans faster, and ensures a long production life ... we guarantee it.

Our equipment utilizes state-of-the-art designs and technology. From high-tech controls to low maintenance designs, manufacturers count on Comet to provide auxiliary equipment that lowers their manufacturing costs.

### ***Service Leader***

Comet has over 30 years experience supplying equipment to the top companies in the industry, as well as to start-ups, and custom shops. Our auxiliary equipment is used to manufacture packaging, automotive, electrical, medical, clean-room, and CD/DVD products. It is no surprise that most of our new customers are a result of the reputation we've earned through our years of dedicated service.

### ***Global Leader***

Comet proudly manufactures its equipment in the USA, Europe, and Asia. We maintain strategic partnerships around the world.

### ***For More Information***

To learn more about how our equipment can simplify your production, please call toll-free: **1-800-328-5088**, or visit us on the Web at **[www.cometasi.com](http://www.cometasi.com)**

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# Single Phase Hopper Loader

## EV-Series



Comet's EV-Series corrosion free, stainless steel single hopper loader is designed to provide gentle transportation of free-flowing, virgin granules, and regrind directly to your injection molding machine.

### **Design Features**

- Stainless steel construction
- Automatic filter cleaning
- Fabric vacuum filter with stainless mesh backing
- JIT design with optical level sensors
- Low noise vacuum motor
- Electrical control and loader head prepared for future centralized system expansion

### **Specifications**

Model	EV3	EV6
Height (in):	24.25"	29"
Hopper Capacity (L):	3	6
Loader Inlet Dia. (in):	1.5"	1.5"
Max. Throughput: (lbs. / hr.)	132	264

# Single Phase Hopper Loader

## E-Series



Comet's E-Series corrosion free, stainless steel single hopper loader is designed to provide gentle transportation of free-flowing, virgin granules, and regrind directly to your processing machine.

### Design Features

- Stainless steel construction
- Automatic filter cleaning
- Fabric vacuum filter with stainless mesh backing
- Low noise vacuum motor
- Electrical control and loader head prepared for future centralized system

### Specifications

Model	E3	E6	E12
Height (in):	19.7"	24.4"	29.7"
Hopper Capacity (L):	3	6	12
Loader Inlet Dia. (in):	1.5"	1.5"	1.5"
Max. Throughput: (lbs. / hr.)	132	264	396

# Three Phase Hopper Loader

## M-Pump



*M-Pump with SV3 & S6*

M-Pump vacuum units are portable and feature a powerful 3-phase vacuum blower, cartridge filter, and exhaust manifold. The unit is capable of connecting to one S-Series filterless receiver or as many as six S-C Series receivers.

Filterless vacuum receivers and brushless motors make the M-Pump a wise choice. Offered at a reasonable price, our compact central vacuum provides a low-maintenance solution to all of your loading needs.

### **Specifications**

<b>Model</b>	<b>M2</b>	<b>M3</b>	<b>M5</b>
<b>Height (in):</b>	25.6"	27.4"	27.4"
<b>Blower (HP):</b>	2.5	3.5	5.0
<b>Throughput: (lbs. / hr.)</b>	880	1200	1650
<b>Weight (lbs):</b>	60	90	110

# Proportioning Valve

## CPV



Comet's Two-Component CPV proportioning valve enables two materials to be conveyed in a preselected percentage through an individual hopper loader or a central vacuum receiver. Through in-line mixing, the CPV eliminates virgin and regrind layering, common in ratio loaders. Material proportion can be digitally set on the electronic control box mounted on the unit. During a single conveying cycle, it is possible to switch materials (virgin and regrind) as often as desired.

Switching is accomplished using a stainless steel diverter. All components of the unit are manufactured of stainless steel to withstand wear and continuous operation.

### **Specifications**

#### **CPV-Two-Component Proportioning Valve**

<b>Height (in):</b>	12"
<b>Width (in):</b>	10"
<b>Weight (lbs):</b>	17
<b>Tube Size (in):</b>	1.5", 2", 2.5"

## Conveying

### CV3, C6, C12, C25



**CV3**



**C6**



**C25**

Comet's filterless vacuum receivers efficiently convey material for all plastic processing applications. They are constructed from the highest quality stainless steel, crucial to ensure a long production life.

Comet's vacuum receivers are modularly designed, can be automatically or manually cycled, and are easy to maintain. Each can be connected to any central loading system from any control manufacturer. The total capacity, distance and number of machines dictate the size of the system.

### Specifications

Model	CV3	C6	C12	C25
Height (in):	24.5"	26.3"	32"	38.1"
Max. Dia. (in):	6.5"	9.2"	9.2"	16"
Throughput: (lbs. / hr.)	60	120	250	1000-2000
Mounting Rim Dia (in):	4.3"	11.2"	11.2"	10"
Inlet Size (in):	1.5 or 2"	1.5 or 2"	1.5 or 2"	2 or 2.5"

## **Custom Controls**

### **Allen-Bradley**



Allen-Bradley controls set the standard for reliability and flexibility. They are the key to lower costs, improved throughput, higher quality, and increased flexibility. Comet offers highly integrated control solutions from Allen-Bradley to assure that your system will be able to solve those challenges.

Comet's custom Allen-Bradley controls include all programming software and documentation as part of the Comet package. Data storage of the program is also complimentary so you can easily modify or expand the controls, while being assured that original software is safe and only a phone call away.

The benefits come in time savings, cost savings, and faster startups resulting from Comet's pre-integrated products, all designed to work together. Allen-Bradley parts and software support are available worldwide.

## **Custom Plant Handling Systems**

***Designed to Fit Your Needs***

Your plant does not look like anyone else's, why should your resin handling system?

Comet will design a system that fits your specific plant operating needs – ***from concept to completion.***

Your unique Comet design will minimize costs, reduce downtime, increase output and reduce maintenance, all at competitive prices.

Before you invest in a resin handling system, contact the customization experts at Comet, where you will always reduce system operating costs by 30 - 70%.

**YOUR**

**CUSTOM SOLUTION**

is just a **PHONE CALL**

**AWAY!**



# ***Installations***

## ***Turnkey Systems***

Comet provides turnkey systems with:

- Installation supervision
- Complete crew installation
- Special equipment (cranes, forklifts, pneumatic tools)
- Detailed training in the operation and maintenance of completed installations
- Video tapes for future employee training
- Full Warranty on parts



*Storage Silos*



*Vacuum Pumps and  
Central Filters*



*Inside Surge Bins*

## *Installations*



*Tilt Tables & Piping*



*Proportioning Valve*



*Color Feeders*



*Central Weigh Blending*

## *Installations*



*Honeycomb Dryer with 2 Drying Hoppers*



*JIT Glass Loaders*



*Manifold with 2" Quick Disconnect*



*Centralized Honeycomb Drying System*

## ***Color Feeders***

### ***Color Xpert***



Comet's Color Xpert Feeder has been developed to use with both extrusion and injection molding machines.

The Xpert comes with a step motor with an incremental accuracy of 1/100 of a revolution. The microprocessor control includes a digital readout and setting for the metering screw. When the injection molding machine sends a signal to the unit at the start of screw recovery, the color feeder accurately meters the color or additive directly into the molding machine's feed throat. The number of revolutions and the revolutions per minute are set to match the screw recovery time. The screw speed range can be set from 1 ~ 99 revolutions per minute (RPM).

The Color Xpert is made from 100% stainless steel construction, giving you a rugged design where it counts.

### ***Specifications***

**Screw/Sleeves & Throughput lbs./hr.** (listed as max. capacity of additives and not total process throughput):

5/6	6/13	9/16	12/19	15/22	18/25	21/28
0~3.85	0~3.3	0~13.2	0~29.1	0~51.58	0~72.75	0~88

# **Blending Systems**

## **GraviMix™ Blenders**



The Comet GraviMix™ blender is designed to blend free-flowing pellets in processes which require accurate dosing and repeatability with efficient mixing. Unaffected by vibrations, this unit mounts easily onto the throat of the processing machine, to be installed either on a mezzanine, or on a vacuum take-off stand to feed one or more machines.

### **Design Features**

- Available in 14 models: 2, 4 or 6 ingredients, with throughputs up to 330, 660, 1450 and 2200 lbs/hr.
- Partitioned hopper complete with cover prearranged for vacuum loader installation.
- Patented dispense valve, slide gate type.
- Drain spout for easy and quick complete partitioned hopper emptying.
- Mixer driven by AC motor, continuous or timed functioning.
- Easy to use, simply set the dosing percentage.
- Material flow control valve, supplied when the batch blender is mounted on a bin, a hopper or a vacuum take-off stand.

# Hot Air Dryers

## CDH-Series



Comet's CDH-Series hot air dryer, dries plastic granules directly at the machine eliminating contamination or re-absorption of moisture when conveying from a central drying position to a machine hopper. This dryer is ideally suited for continuous drying from 5 - 600 lbs. per hour of plastic granules.

### **Design Features**

- Fully stainless steel internal parts
- 7-day timer clock for auto startup
- Hopper lid provides easy mounting of hopper loader
- Adjustable overheat safety thermostat
- Electrical circuit built to comply with NFPA safety requirements

### **Specifications**

#### **CDH-Series (15, 30, 50, 75, 100, 150, 200, 300, 400, 600)**

**Hopper Capacity (lbs):** from 33 to 1320

**Heating Capacity (kW):** from 1.6 to 10

**Drying Temp. Range (F):** 275°  
(450° optional—high heat)

# ***Compressed Air Dryers***

## ***Micro Dryer***



Comet's Micro Dryer uses dehumidified compressed air from the plant's air system for the drying process.

The micro dryer was designed to process resins at 0-3 lbs./hr. with quality and repeatability. This dryer comes with a Pyrex glass hopper and an easy-to-run controller, making it ideal for micro molding.

This dryer is also maintenance-free. Hopper sizes range from 500 mL to 3L.

## **Compressed Air Dryers**

### **ERD Xpert**



Comet's ERD Xpert uses dehumidified compressed air from the plant's air system for the drying process. This unique system requires no maintenance and is the most efficient way to dry small batches of material.

Advanced micro processor controls strictly regulate compressed air consumption and prevent waste of compressed air.

#### **Design Features**

- 30% average energy savings over desiccant
- Dewpoints below -40°F
- Maintenance free, stainless steel internal parts
- Available in sizes up to 500 lbs/hr – and from 7 to 152 liters

# ***Matrix Drying System***

## ***HCD Honeycomb***



Comet's HCD Honeycomb dehumidifiers have been built utilizing the "Rotating Honeycomb" principle. A rotor slowly turns while a cycle of dehumidification, regeneration, and cooling is repeated simultaneously. This drying system provides a constantly lower dewpoint than any desiccant, compressed air, vacuum, or other dryer available today. Because this unique system operates in continuous drying, it is able to maintain dewpoints of  $-50^{\circ}\text{F}$ , continuously. A closed-loop circuit design eliminates the risk of moisture re-absorption and is suitable for polymer drying applications involving large quantities of hygroscopic material.

### ***Specifications***

**Drying Capacity** (lbs. / hr.): from 5 to 3000

# ***Dehumidifying Dryers***

## ***FCD Compact Honeycomb***



The compact dryer, mounted on a mobile frame, consists of three main parts: the Honeycomb Dehumidified Dryer, the Drying Hopper and the Loading System. The loaders feed to and from the drying hopper to the machine or, as an option, from the surge bin to the drying hopper. The FCD can supply one material to six machines and, depending on production requirements, special loaders can be designed to handle powder and dust separation. The vacuum pump and fines filter are mounted inside the unit.

As an option, FCD units are available as PC dryers for special applications such as CD, DVD, LCD, LENS, Optics, MO and OLED.

# Mold Protection

## Plus-E



Comet's Plus-E mold detection device keeps a watch on quality utilizing a *patented error prevention system*. The all-in-one compact design comes with a 6 $\frac{1}{2}$ " LCD monitor and the entire unit weighs just over 2 $\frac{1}{2}$  pounds.

The monitoring process time takes only 0.03 seconds, significantly decreasing cycle time. The high screen resolution allows for precise, detailed monitoring of even the smallest molded part. The Plus-E settings for each condition are easy, simply select items on the menu screen. Automatic capture of a reference image can be completed in just one teach-in cycle.

### Configurations

<b>Standard</b>	Main body
<b>Supplies</b>	CCD Camera (w/standard lens)
	Camera Cable
	Camera Mounting Stand (w/platform)
	Lighting Stand
	Interface Cable

*Optional: Second camera lens;  
Lens and halogen lighting set also available.*

# Water Temperature Controllers

## CW-Series

The CW series water temperature controllers use water as the heating medium, and processes under direct cooling method for heating up to 284°F, with the indirect-cooled “high temperature” type up to 356°F.



### Other standard features include:

- All pumps are manufactured from corrosion-free phosphor bronze by “Speck” in Germany.
- Standard control accurate  $\pm 32.9^{\circ}\text{F}$ . (Custom design options also available.)
- The module design is compact, economical, efficient and basically maintenance-free.
- Comes complete with safety protection and error indication system.
- Hot water piping is provided with a single structure formation, extended to 4 inlet and 4 outlet separation tubes to avoid water leakage.
- Rapid heating and cooling off speeds – temperature is kept stable at all times.
- Electrical circuit built to comply with CE safety requirements.

## **Water or Oil Controllers**

### **CWO-Series**

This unit is designed for water operation up to maximum of 194°F.

Respectively, oil operation up to maximum of 302°F.



#### **Other standard features include:**

- All pumps are submersible and manufactured from corrosion free bronze phosphor by "SPECK" in Germany.
- Standard control accurate +/- 32.9°F. (Special design upon request.)
- The module design is compact, economical, efficient and basically maintenance free.
- Complete with safety protection and error indication system.
- Hot water piping is one inlet/one outlet – can be extended to 4 inlet/outlets as an option.
- Special design allows faster, more stable temperature rise and prevents denaturing of the medium oil.

# **Water or Oil Controllers**

## **CV-Series**



The CV series is designed with operation in pressure or suction mode, to allow continuous production – despite leakage from mold or connections.

The temperature operation range with water reaches a maximum of 194°F. The maximum temperature operation for oil is 302°F.

### **Other standard features include:**

- All pumps are submersible, and manufactured from corrosion free bronze phosphor by "SPECK" in Germany.
- Self-optimizing microprocessor controller with digital display of set and actual temperature.
- Leak-stop device prevents the medium from leaking.
- Automatic mold drainage.
- Level control provides auto dry run protection.
- Electrical and mechanical safety thermostat.
- Automatic water refill (except oil option.)

# Oil Temperature Controllers

## CO-Series

The CO oil temperature control uses heat transfer oil as heating medium and processes under indirect cooling method for heating up to 356°F.



### Other standard features include:

- All pumps are manufactured from corrosion free bronze phosphor by "SPECK" in Germany.
- Standard control accurate  $\pm 33.08^{\circ}\text{F}$ . (Special design upon request.)
- The module design is compact, economical, efficient and basically maintenance free.
- Automatic water drain when you change the mold.
- Complete with safety protection and error indication system.
- Hot water piping is made with a single structure formation, extended into 4 inlet and outlet separation tubes to avoid water leakage.
- Rapid heating and cooling speeds – temperature is kept stable at all times.

# **High Temperature Oil Controller**

## **COH-Series**



The COH series high temperature controllers make use of oil to control die casting, molding, extruding equipment, rollers, storage tanks and other hi-tech equipment above 608°F temperatures.

### **Other standard features include:**

- Safe structure and guaranteed durability adapting to ultra-high temperatures and large amounts of oil – heat resistant pump.
- The possibility of leaking is reduced by equipping the magnet pump for high temperature and zero moisture contents within the closed circuit.
- PID temperature control for heating and cooling type.
- Oil carbonization completely removes leakage, smoke, odor and overflow issues.
- Comes complete with an auto air ventilation function, embedded expansion tank, and an alarm system for overheating over current and other abnormalities.
- Protect against high temperatures with a special circuit structure, which inverts the inflow function within the pipelines.
- All pumps are manufactured with absolute precision and makes use of anti-erosive materials - provided by "Speck" in Germany.