

# Solutions for blending, dosing and handling powders

## Technical Information



### FEATURES

Overview of new extrusion control solutions from Maguire + CST...



### PRODUCT RANGE

View the Maguire + CST product range...

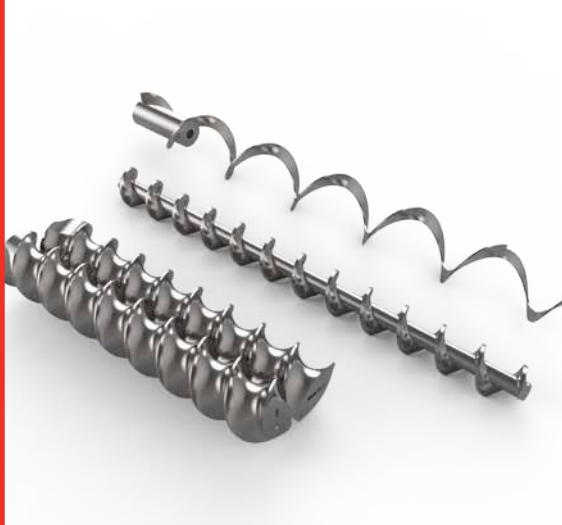
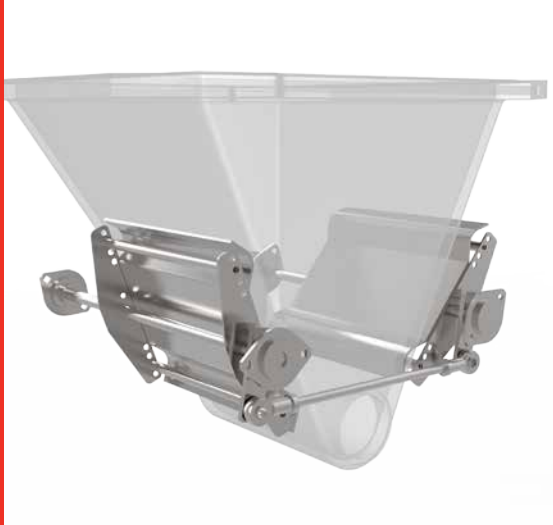
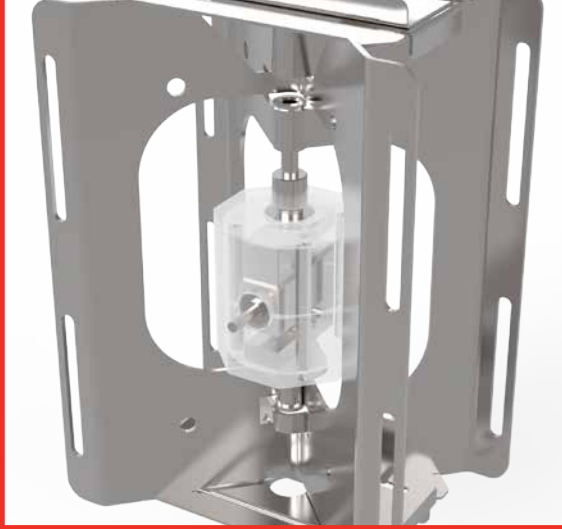


### CONTACT

Find out where your regional head office is located...

**CONSISTENTLY MAINTAIN FLOW RATES OF POOR FLOWING MATERIALS, SUCH AS POWDERS, THAT TEND TO CLUMP OR PACK.**

**MAGUIRE® + CST**



# PRODUCT RANGE



## Maguire + CST – Powder Specialists

Together, Maguire + CST provide more options for customers focused on Molding and Extrusion applications. From individual components to complete turnkey solutions, plastics processors can eliminate waste of colorants and additive with our powder feeders that keep material flowing.

### MPF Powder Feeder

The MPF powder feeder is designed to handle powders that do not flow well. The hopper features an internal bridge breaker bar that sweeps the bottom of the hopper once every 2 turns of the auger.

#### Accurate metering

The bridge breaker serves to keep the flights of the auger full and assures accurate metering.

#### No compaction

The hopper capacity is restricted to about ½ cu. ft. (about 10 lbs) and helps with metering and avoids compaction.

#### Easy clean out

The hopper is stainless steel and removable for easy cleanout.

#### 3 standard modes of operation

Cyclical, Continuous and Extrusion Following.

#### Precise color dosing

The digital counter located on the face of the controller provides the means for predetermining the exact degree of auger rotation ensuring the precise amount of color will be added.

#### Extruders and injection molders

For injection molders, the motor will shut-off when the preset count is reached during each cycle. For extruders, an optional digital tachometer feedback is available to ensure that motor speed is precisely regulated regardless of changing torque requirements or variations in plant voltage.

#### 3 models

There are three models available; MPF-4; MPF-8; and MPF-16 with auger sizes of ½" (12mm), 1" (25mm) and 2" (50mm) respectively.



## C-one

C-one is a single screw feeding unit, available in volumetric and gravimetric options. Multiple screw sizes and models are available for different kinds of material, making it possible to feed powders, granules, pellets, flakes and fibers.

### Accurate material flow

Material flow is kept constant and bridging is avoided by the single motor which drives the feeding screw and the horizontal agitator.

### Gravimetric and volumetric

Available in volumetric and gravimetric feeders. In loss-in-weight models, an analogue load cell is installed to guarantee continuous accuracy.

### 3 screw versions available

Different kinds of screws are available for different kinds of materials; auger; spiral; square springs.

### Modular design

The modular design of the C-One series allows plastics processors to change material and feed-rate by simply changing the screw and discharge outlet.

### Easy maintenance and cleaning

Bayonet fittings allows for easy cleaning and fast screw replacement without the use of tools.



**SCREWS**



**MODULAR HOPPERS**



**LOAD CELL**

# C-twyn

C-twyn is a twin screw feeding unit engineered in different sizes to feed powders, granules, pellets and flakes.

## Gravimetric and volumetric

C-twyn is available in volumetric and gravimetric feeders. In loss-in-weight models, an analogue load cell is installed guaranteeing continuous accuracy.

## Ideal for powders

The twin screw feeder is particularly well suited to powders as the feeding screw keeps material flow constant.

## Modular design

The modular design of the C-twyn series allows users to change material and feed-rate by simply changing the screws and discharge outlet.

## Wide range of materials

With a range of different screws available, operators can feed any kind of product with any throughput accurately and consistency.

## Horizontal agitator

With poor flowing or sticky material, the horizontal agitator avoids the occurrence of blocks or bridging, allowing material to flow freely.

“The compact design is easy and quick to clean without the use of tools and comes in either AC, DC or brushless motors.”



MODULAR  
HOPPERS



HORIZONTAL  
AGITATOR



VERTICAL  
AGITATOR

## C-flexy

C-flexy, a twin or mono screw feeding unit with flexible hopper, is available in several sizes to feed poor flowing materials, powders, granules, regrind and flake.

### High flexibility

The internal polyurethane hopper guarantees flexibility. The material inside the flexible hopper is continuously kneaded by external paddles with adjustable speed in order to avoid bridging.

### Gravimetric and volumetric

The C-flexy is available in volumetric and gravimetric feeders. In loss-in-weight models, an analogue load cell is installed providing continuous accuracy.

### Poor flowing material

Where poor flowing materials are used, the operator can install a horizontal agitator and/or paddles to ensure material continues to flow.

### Easy clean out

Operators can easily pull the C-flexy apart for easy clean out and quick material change. Increasing or decreasing the number of screws to a single or twin feeding device is easy for operators to change out quickly.

### Modular design

C-flexy offers the highest standard of flexibility in the dosing market.

### 4 screw versions available

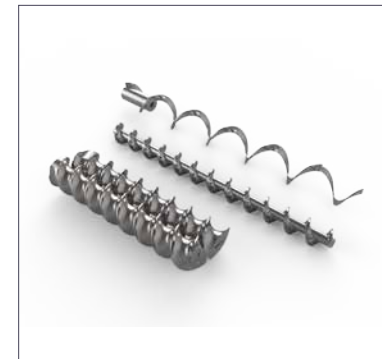
Different kinds of screws are available for different kinds of products; auger; spiral; square spring; and concave auto cleaning.

### Internal paddles

Poor flowing materials can be fed thanks to the continuous kneading action of the paddles which avoid bridging and material degradation.



**INTERNAL PADDLES**



**SCREWS**



**LOAD CELL**

# C-vybro

C-vybro is a feeding unit with a vibrating tray making it ideal for feeding fragile, abrasive and free flowing materials, such as granules, flakes and fibers.

## No material degradation

A vibrating tray with an electromagnetic drive feeds the material at the throughput required. With no mechanical friction during dosing, material characteristics are kept without risk of degradation.

## Throughput flexibility

With different vibrating devices and tray sizes, operators can feed materials with any throughput, accurately and consistently.

## Modular hoppers

Standard feeder hoppers can be perfectly combined with various measure extensions which are suited to the flow rate.

## Gravimetric and volumetric

The C-vybro is available in volumetric and gravimetric versions. In loss-in-weight models, an analogue load cell is installed providing continuous accuracy.

“Compact design which operators can quickly clean and easily undertake any necessary maintenance. ATEX compliant.”



PLATFORM SCALE



FLUIDIZED HOPPER



VIBRATING TRAY

## C-lab

Our feeding unit for low throughputs, C-lab, is available in both a single and twin screw feeding unit to feed powders, granules, pellets and flakes.

### Gravimetric and volumetric

The C-lab is available in volumetric and gravimetric versions. In loss-in-weight models, an analogue load cell is installed providing continuous accuracy.

### Low throughputs

C-lab has been designed for very low throughputs.

### Constant material flow

An integrated aluminium gear box drives the feeding screw and the horizontal agitator, which avoids bridging and keeps material flow constant.

### Variety of screw configurations

Operators are able to select from different screw sizes to feed any kind of product while retaining high accuracy and consistency.

### Fast material change

The detachable hopper, which requires no tools to remove, allows operators to replace the unit for new production runs, avoiding material contamination.

### Fast screw changes

A bayonet fitting allows operators to quickly replace screws without the use of tools.

### 3 screw types

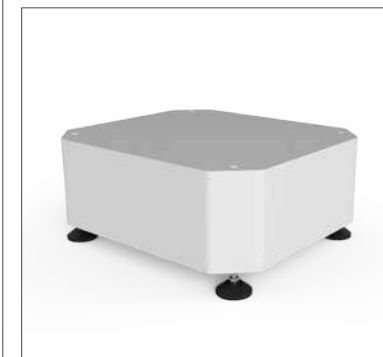
3 screw types allow operators to feed a variety of materials; auger; spiral; square springs.



**SCREW  
DISASSEMBLY**



**SCREWS**



**PLATFORM SCALE**

# C-multy

C-multy is a modular, multi-component, continuous gravimetric feeder and blending station.

## Extrusion applications

C-multy is suited to starve feed extrusion and full screw extrusion systems.

## Customization

The dosing station can be completely customized according to the required recipe.

## 3 standard sizes

The dosing station is available in 3 sizes, each able to house from 2 up to 8 single feeding units.

## Loss-in-weight system

Each individual component is separately fed through a loss-in-weight continuous system into a hopper.

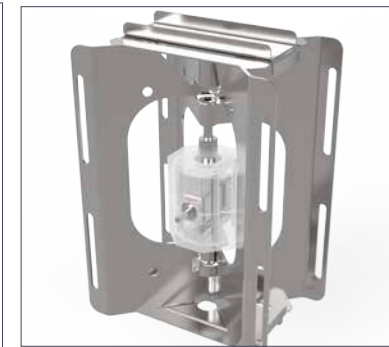
## Use of a wide choice of materials

C-multy is suitable for both free-flowing and poor-flowing materials.

## Load cells

Load cells are present on the base frame to ensure accurate weighing of materials as they're dosed.

*“The compact, stainless steel design is available with either AC, DC or brushless motors.”*



**LOAD CELL ON  
BASE FRAME**



**SUPERVISORY  
SYSTEM**



**INTERCHANGEABLE  
MODULES**

## C-view 4.0 explorer control system

C-view 4.0 is a complete supervisory system for both new and existing process lines. It can easily be retrofitted to an existing line and is designed with a high level of modularity to allow the user to manage the system from materials handling storage to conveying and dosing.

### High level of modularity

The supervisory system is designed with a high level of modularity to completely manage the extrusion line through an HTML interface.

### Connected control

C-view can be operated from your PC, smartphone and tablet, so you can keep your extrusion line under control, wherever you are. Monitor recipes, check up on alarms and vary the speed drive of dosing devices through C-view 4.0.

### Secure data exchange

C-view 4.0 is integrated with OPC-UA, a robust mechanism which ensures that plant floor information is easily and securely exchanged between the server and multiple clients, maintaining the integrity of their communication.

### Save engineering costs

By integrating the system with OPC-UA, C-view 4.0 saves engineering costs when exchanging process data between C-view 4.0 controlled machines and other process machines. It also allows for easy communication between any management software, such as MRP, ERP or CRM.

### 3 HMIs MultiTouch screens available

Operators can choose from a range of MultiTouch screens from which to manage their extrusion lines; 15", 19" and 21".

Completely manage your extrusion line through an HTML interface that can be accessed through your PC, smartphone or tablet."



# C-dense

C-dense is a dense phase conveying system ideally suited to transporting abrasive, fragile and sticky materials along the pipeline.

## Low speed conveying

Materials are conveyed at low speeds in order to avoid material degradation or separation, which would result in re-mixing of the batch.

## Reduce operation expenditure

The gentle process reduces wear and tear on your pipes, reducing operational expenditure and increasing the life expectancy of your system.

## Bulk materials handling

C-dense transports materials gently, making it suited to abrasive, mixed batch, fragile and sticky materials.

## Low energy consumption

Energy savings are made due to low volumes of air required to transport materials.

## Avoid pipe blockages

When conveying over long distances a booster can be installed on the dense phase line to facilitate conveying, avoiding pipe blockages. Boosters are driven by a dedicated line, taking air from a pneumatic cabinet.

## Smart design

The smart design of the C-dense conveying system makes it ideal for conveying from a single source to multiple locations.



**MAGUIRE**®   **CST**

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