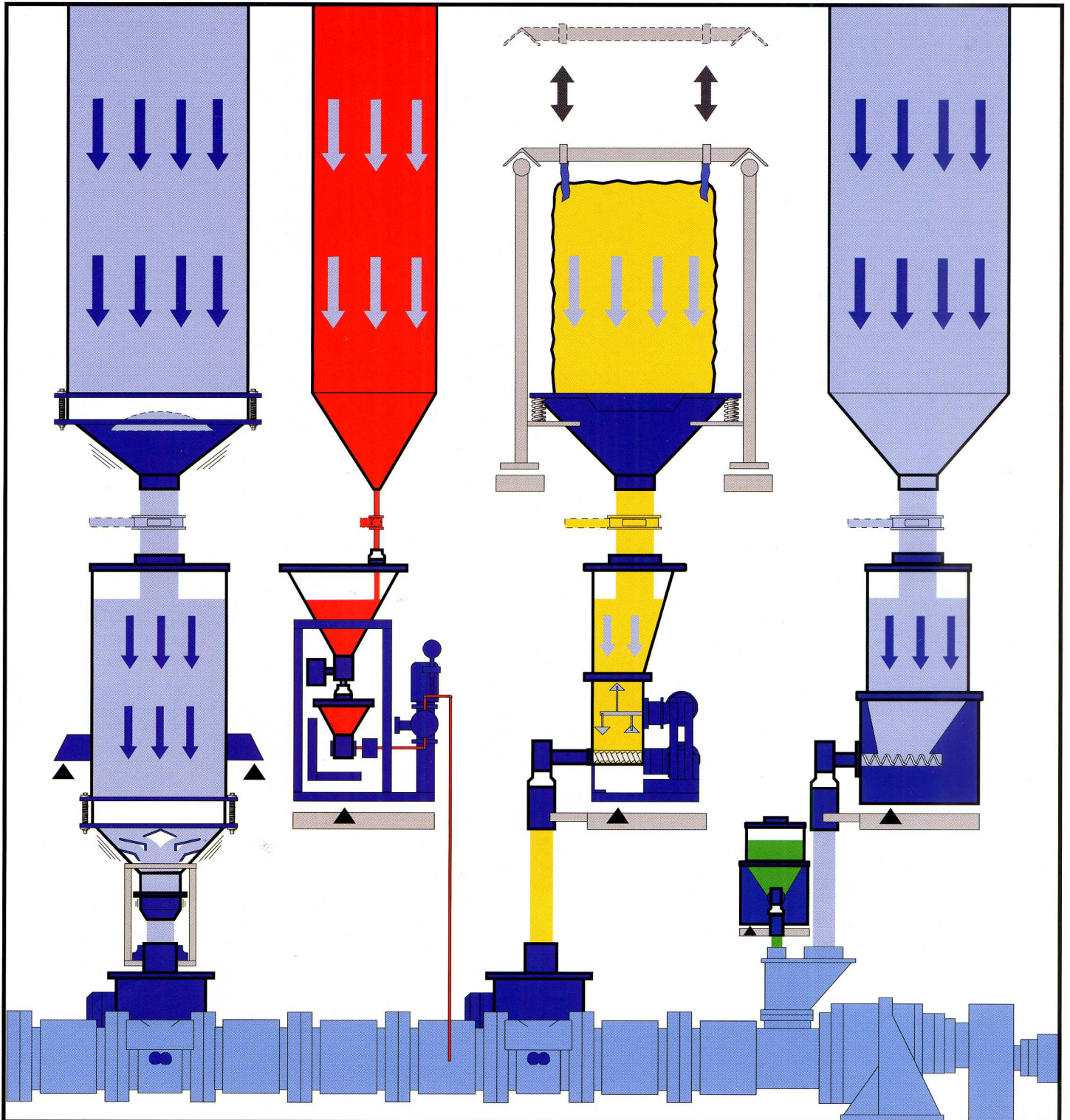


Brabender Technologie

Feeding Systems for Compounding Lines



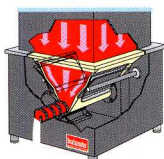
Compounders Need Accuracy

*Accuracy depends on the best combination of components:
feed device, scale, load cell, controller, refill*

Feed Device

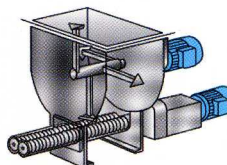
Single screw, twin screw, or vibratory tray, the feed device selected depends on the ingredient. With over 10,000 installations, Brabender engineers will choose the correct feed device for your powders, flakes, granules and fibers.

Single Screw



Flexwall, External Agitator

Twin Screw



Internal Stirring Agitator

Vibratory Tray



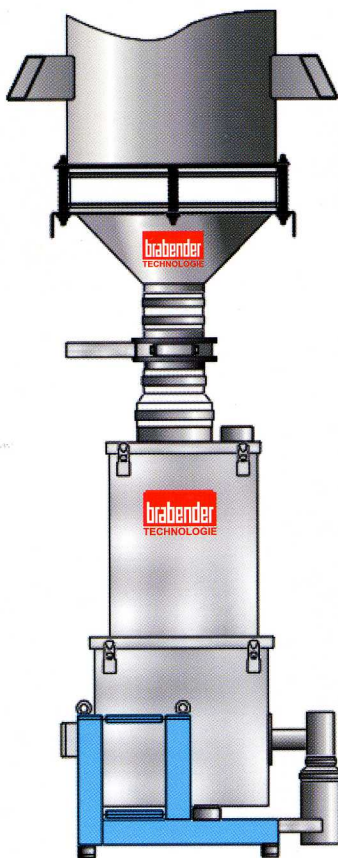
Amplitude Feedback with Resonant Frequency Control

Scale and Load Cell

The **scale** utilizes parallel flexures extending from an L shaped (frame) mounting base. The vertical beams of the base support the flexures and the pre-wired junction boxes. Four parallel flexure arms support the feeder and weigh hopper, concentrating the load onto one digital load cell (IDL-F). The bottom of the "L" frame mounts to the floor.

The **load cell** is digital, utilizing the Brabender perfected tensioned wire and named Intelligent Digital Load Cell-Filtered (IDL-F). This truly digital load cell offers 1:million resolution, microprocessor based filtering and low displacement (8/1000 inch movement from full load to no load). The scale appears not to move. Low displacement is very important after refill or scale upset allowing the feeder to return quickly to gravimetric control. The load cell signal is temperature compensated and is connected to the controller serially via RS422 link.

Load cell filtering enables the scale to produce stable weight readings even in highly vibrating surroundings.



Controller

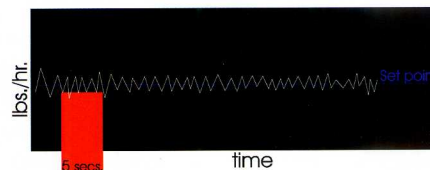
Each Congrav® controller model incorporates a proprietary algorithm with self tuning PID and max. feed rate self calculation for fast "on line" control. Each controller uses self diagnostics to ensure feed rate control is at set point.

Refill Device

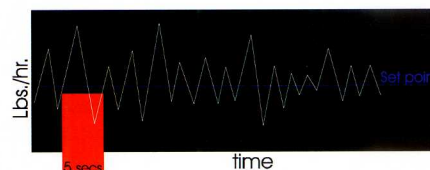
Brabender manufactures a variety of fast, flexible and reliable refill devices including 6 inch FlexWall® feeders, bin activators and bulk bag unloaders.

The Brabender Result Highly Accurate, Stable Feed Rate

High speed extrusion requires feeders with stability over short term durations.



A smooth flow from your feeder provides consistent high quality product.



Fluctuating feed rates reduce your extruder polymer quality.

Accuracy verification on line

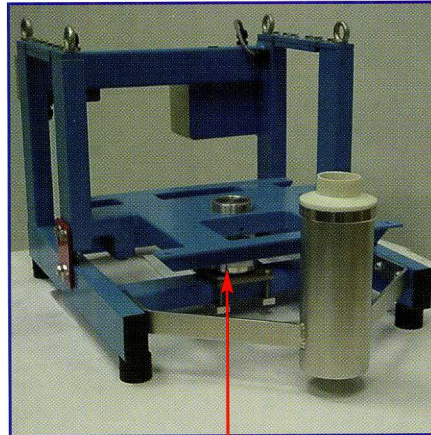
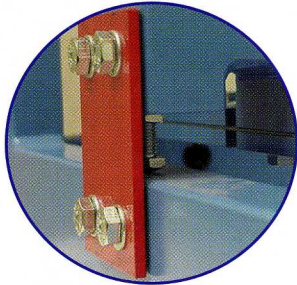
This exclusive Brabender feature provides a feed rate "on line" check and a remote "off line" scale check to prove feed rate performance on line without process feed interruption.

Count On Us, Give Us a Call.

*Down time is unacceptable, all components must be reliable.
Brabender supports you 24 hours, call 888-284-4574.*

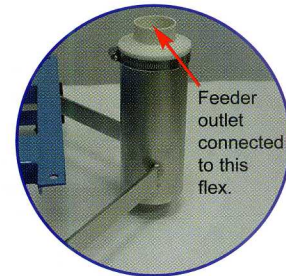
Protected Scale

The scale concentrates the load onto a SINGLE load cell (IDL-F). In contrast to configurations employing 2 or 3 load cells, the Brabender design presents advantages for trouble-shooting, maintenance, and spare parts inventory. Easy scale lock-down during maintenance and shipping provides a 100% load cell protection.

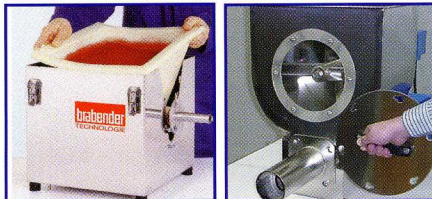


Non-Weighed Process Connection

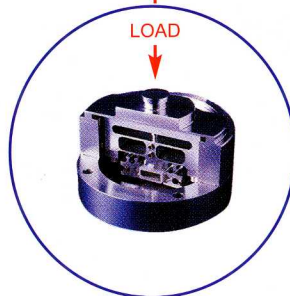
A stainless steel fixed process connection is mounted on the scale base to ensure weighing integrity is not affected at this very sensitive interconnection point.



Easy Clean/Quick Change



The FlexWall® feeder is well known to provide the fastest and easiest means of emptying, cleaning, and reassembling of any screw feeder. The internally agitated twin screw feeder has an optional easy access clean out panel.



Intelligent Digital Load Cell-Filtered (IDL-F)
A single vibrating wire digital load cell with microprocessor filtering, RS422 serial connection from Load Cell Terminal Box to controller.

Fast, Reliable Installation

Each feeder is fully assembled, factory tested, pre-wired to terminal boxes and locked down for load cell protection. All you need to do at installation is put the feeder in place, wire it to the controller, and unlock the scale.

Protected Load Cell

A mechanical overload protection spring provides overload protection as an integral part of the scale. The filtered Digital load cell offers stable weight values.

Noise Protected, Self Tuning Controllers

Brabender offers controllers tested to the highest standards of interference suppression, electrostatic discharge and radio frequency interference.



Congrav S
Single Feeder Controller



Congrav L/M-3A
Up to 16 feeders controlled by one operator interface



Single Cable Connection (SCC)
Controls up to 32 feeders from feeder mounted controllers and drives (ISC and SC) all on a Single Cable Connection Bus.

Dependable AC Motor and Drive

Rugged AC motor supplied on all screw feeders. No DC motor brushes to replace or proprietary SCR's.



Brabender offers Wood's and Cutler-Hammer (as standard) or customer requested (optional).

Wood's E-TRAC
VDF Control

The Complete Feeding System by Brabender Technologie

INTERNAL AGITATION SERIES

FlexWall® feeders are universally applied to 95% or more of the common ingredients used in plastic compounding. If an internal stirring agitator is better for a particular powder, or if all stainless steel construction is required/preferred then the DSR or DDSR series of feed devices is used.



Twin screw feeders are used for poor flowing, floccable or sticky powders, normally at rates below 50lbs. an hour. The twin screw design provides a large cross section flow area into the screws to reduce the potential to bridge across the screw opening. High screw speeds, self wiping and double flighting provides an accurate feed.

100:1 ELECTRONIC FEED RATE RANGE CHANGE

Vibrating trays or tubes are popular for pellets, some powders, granules and fibers. Brabender manufacturers its own amplitude feedback resonant frequency controller to eliminate feed rate changes with tray load changes.



FEED RATE RANGE CHANGE (up to 100:1) can be achieved by electronic adjustment without having to empty hoppers or replace screws.

FLEXIBLE CONNECTIONS

Remolded white FDA approved polyurethane flexible connections. The flexible transition from a smaller diameter to a larger diameter reduces dust build-up at flex connection.

LOSS-IN-WEIGHT LIQUID FEEDER

Liquids can be metered volumetrically, by mass flow, or by Brabender loss-in-weight techniques, all compatible with Congrav® controls. Liquid loss-in-weight feeders incorporate a weigh tank (treated and agitated optional) with a positive displacement fluid pump.

UPSTREAM REFILL STORAGE

Brabender manufactures Silos with Brabender Bin Activators and Bulk Bag Dischargers.

REFILL WITH FLEXWALL®

FlexWall® is ideal as a storage and refill device because of its large dimensioned inlet and vertical hopper walls with full ingredient activation.

WEIGH BELT

Five belt widths from 6 to 32 inches are standard. Long term stability is assured by self regulating constant belt tensioning, self adjusting belt tracking and six belt scrapers. Easy to clean, the belt can be removed in seconds without tools. Available in all stainless steel construction.



MICRO FEEDERS

Brabender manufactures the smallest twin screw 12 mm diameter and a proprietary pellet feeder for feed rates down to 50 grams an hour and 30 grams an hour respectively.

FEEDING FLAKES AND FLUFF

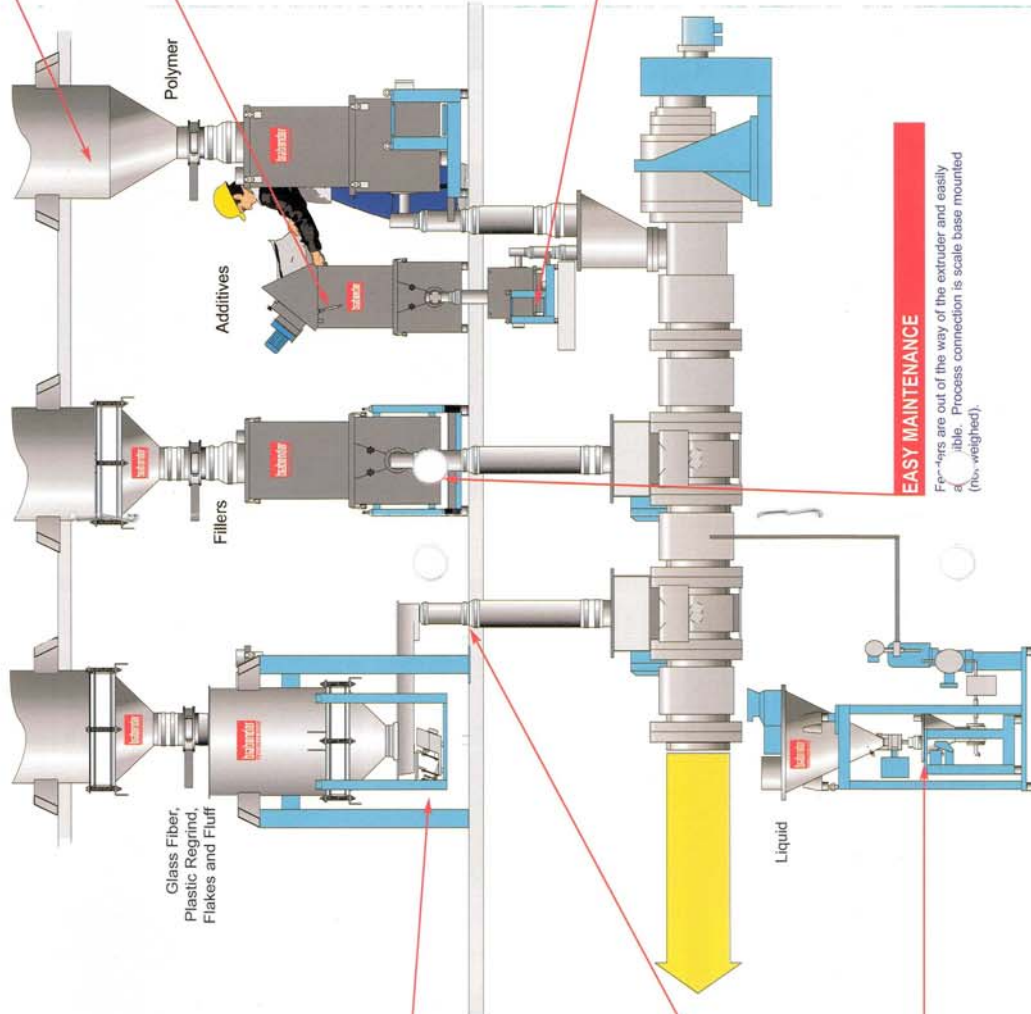
Brabender Silo-Tray Feed System with or without a downstream vibration tray feeds low bulk density flakes (fluff) reliably and without bridging in the feeder hopper.



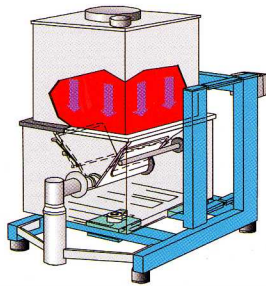
Horizontal Variation Control
adjustment
Film Clips
Silo Tray Feeder

EASY MAINTENANCE

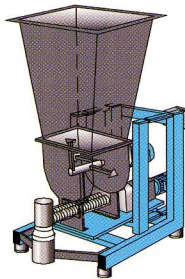
Feeder-4's are out of the way of the extruder and easily accessible. Process connection is scale base mounted (no-weighed).



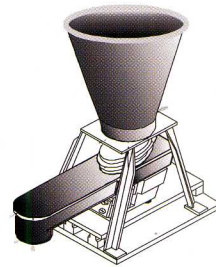
Our Quality Products.



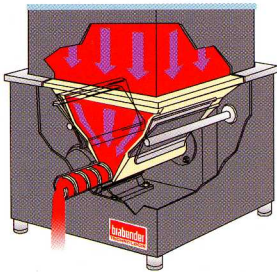
Loss-in-Weight FlexWall Feeder
Digital Scale/1: Million Resolution



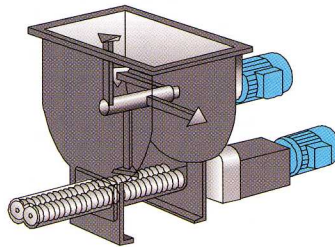
Loss-in-Weight Agitated Screw Feeder
Internal Agitation for some Ingredients



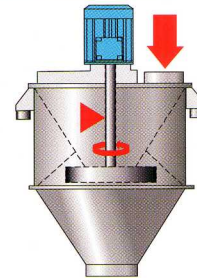
Vibratory Feeder on a Scale
Amplitude Feedback Controller



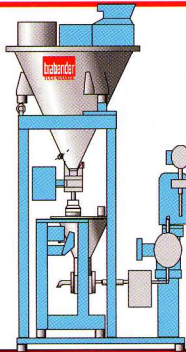
Volumetric FlexWall Feeder
5 Sizes from 1/2" to 6" Screws



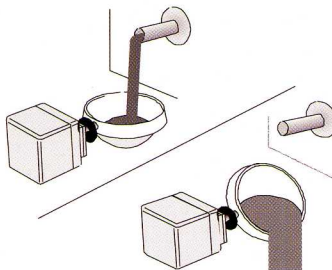
Twin Screw Feeder
12, 20, 40, 60 mm Twin Concave Screws



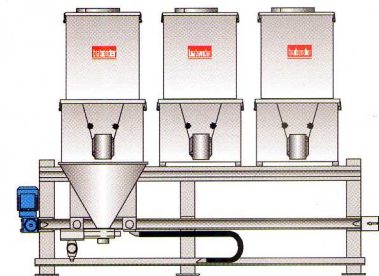
Mass Flow Scale
1000 to 100,000 lbs/hr



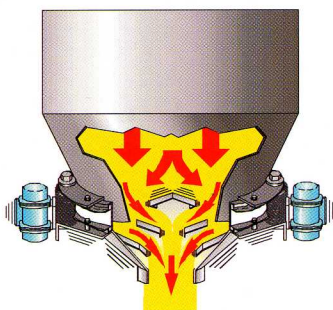
Liquid Loss-in-Weight Feeder
0.1% Feed rate accuracy to 30 grams/hr



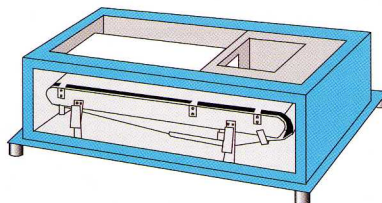
MicroBatch Scale
Batches to 1 gram



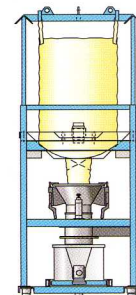
BatchMaster System
To 30 Ingredients, Travelling Scale Hopper



SiloTray Bin Activator
Controlled Rate Feeding from a Silo



Weigh Belt Feeder
6", 14", 24" and 30" Wide belts



Bulk Bag Discharging System
FlexWall has Large Inlet Diameter

brabender
TECHNOLOGIE

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