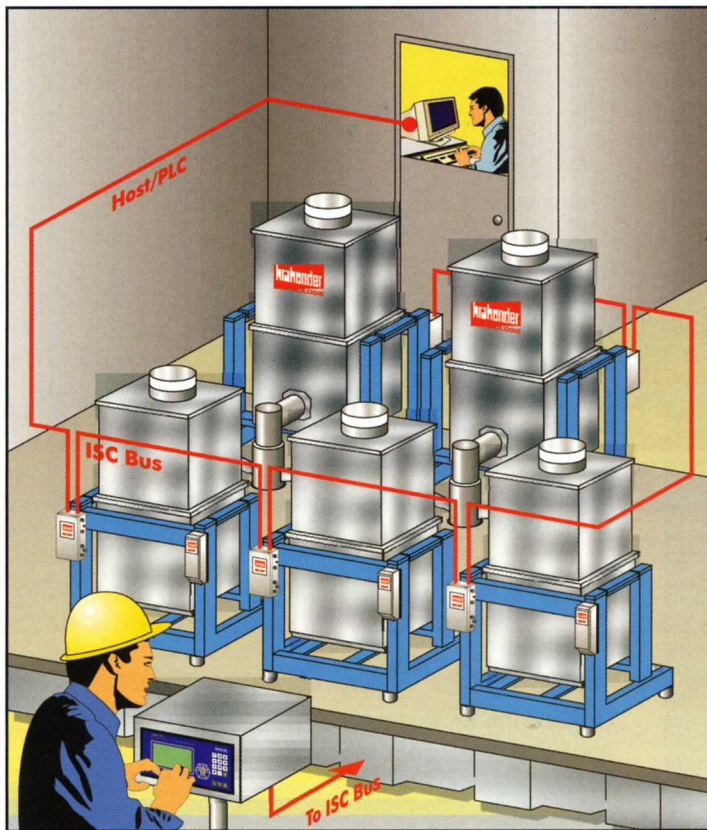
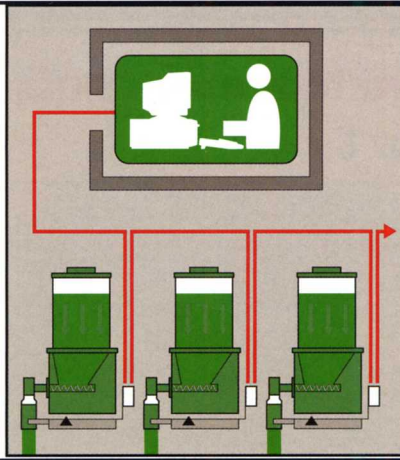


Brabender Technologie

Brabender SCC Field Bus System and conventional hard wired Congrav® controllers



The Brabender SCC Field Bus System

The Brabender Single Cable Connection (SCC) Field Bus System is the latest development from Brabender Technologie to measure, control and regulate electronics for gravimetric metering feeders. It allows integration of "intelligent" Brabender weigh-feeders in installations with multi-feeders and eliminates the need to install control cabinets.

Intelligent Weigh-Feeders

The electronic components which support metering feeders formerly necessitated separate control cabinets. Now they can be integrated in the weigh-feeders themselves. Interconnected by a field bus, the "intelligent" Brabender weigh-feeders are connected directly to Brabender operating and display units and/or host, PC systems - by only a single cable.

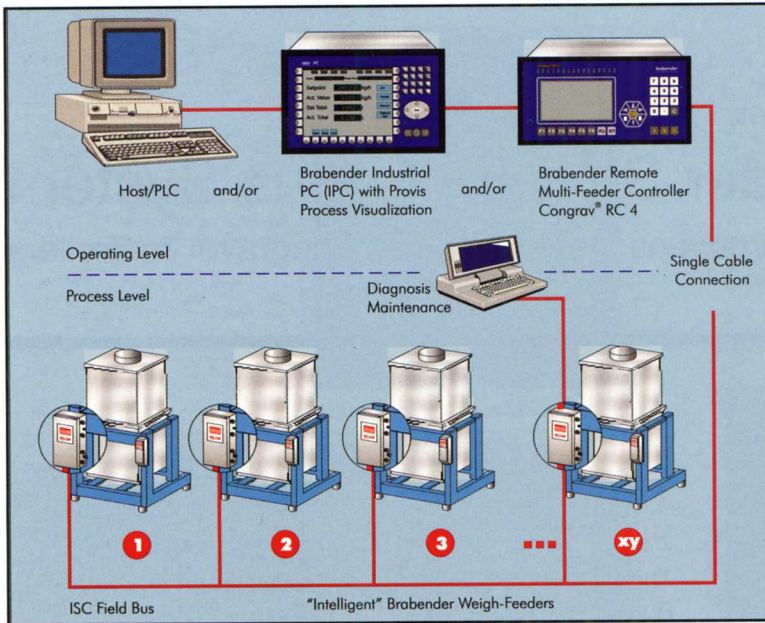
Cost Savings due to SCC

- 80%** of cabling expenses
- 30%** of investment spent on installation, start-up and operator training
- 15%** of purchase price because control cabinets are not required
- 10%** of operating expenses due to reduced trouble shooting and maintenance time

Easy Cabling No Control Cabinets Cost Savings

Compared to conventional technology, the Brabender SCC Field Bus System offers significant cost savings due to lower purchase price and reduced costs for cabling, installation, start-up and training costs. In the case of subsequent expansion of the feeder system further savings will be gained because the additional feeders are easily integrated to the field bus system.

Field Bus System for Multi-Feeder Installations



Built in Control Electronics

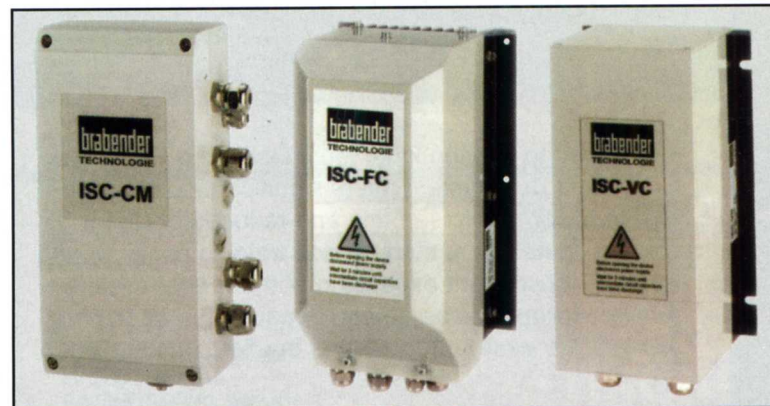
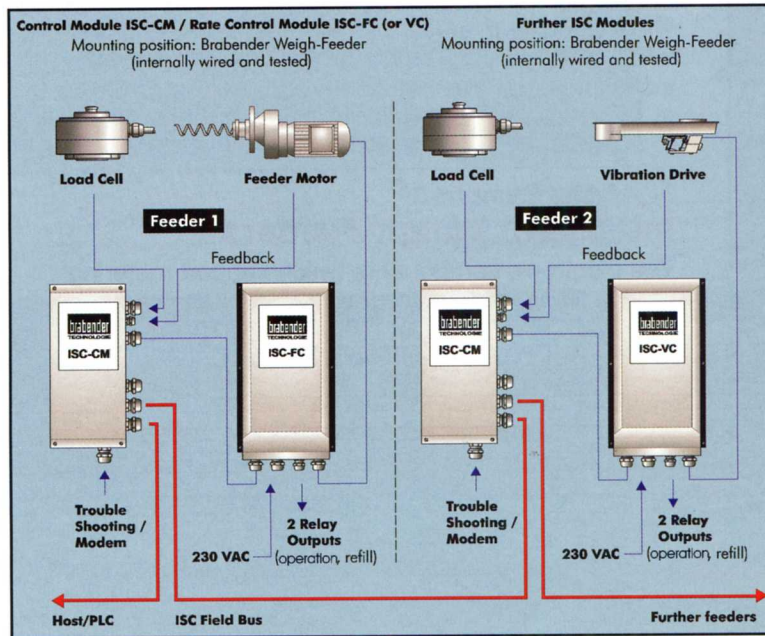
The new design of "intelligent" Brabender weigh feeders permits easy integration to the Brabender SCC Field Bus System. The electronics to measure, control and regulate are built into the feeder-mounted Brabender Intelligent Signal Conditioner (ISC) modules. Each Brabender weigh-feeder is equipped with one ISC control module and one ISC rate control module.

Brabender Control Modules

The weigh feeders are interconnected and interfaced with an operating unit and/or a host/PLC system via the ISC-CM control modules. Each control module is also equipped with a diagnosis and parameter entry interface for individual connection to a PC or laptop for start-up and service purposes. Optionally, a modem may also be connected for remote troubleshooting. For diagnosis through customers' PC units the Brabender diagnosis and maintenance software "SmartService" is available.

Brabender Rate Control Modules

Depending on the type of weigh-feeder, the rate control modules for feed rate control are either designed with a built-in frequency converter, for three-phase current motors (ISC-FC), or a resonant frequency vibration amplitude controller for vibrating tray or vibrating tube feeders (ISC-VC).



1.) Control Module 2.) Frequency Control Module or Vibration Control Module

The modules are neatly mounted and wired onto each feeder's fixed frame.

Shipped Ready For Connection

The Brabender ISC control and rate control modules are factory mounted and wired. Prior to shipment each "intelligent" Brabender weigh feeder is subjected to extensive testing and leaves the factory ready for easy connection to the Brabender SCC Field Bus System.

Operation and Display Units for the Brabender SCC Field Bus

3 alternatives - alone or combined



Brabender Remote Multi-Feeder Controller Congrav® RC 4

is a remote operating display unit with a large 16 line backlit LCD display and an industrial foil-covered keypad. It operates up to 16 feeders within the Brabender SCC Field Bus System. Operational extension boards allow the addition of digital and analog inputs and outputs.



Brabender IPC

comprises an industrial PC with a 12" color display, a foil covered keypad, an integrated mouse and connection for an external keyboard. The unit has a Centronics interface to connect to a printer and is capable of network connectivity via Ethernet (integrated hardware, software via NT operating system). It operates up to 32 feeders.



Direct Interface with Host/PLC systems

Host bus serial communication includes DeviceNet, ControlNet, Profibus DP, Profibus DP-V1, Siemens RK512 (with 3964R), Allen Bradley DH+ or Modicon Modbus with Provis (see below) up to 32 feeders can be operated.

Configuration Possibilities

RC4

RC4 with IPC

RC4 with host PLC/PC

IPC

IPC with host PLC/PC

host PLC/PC

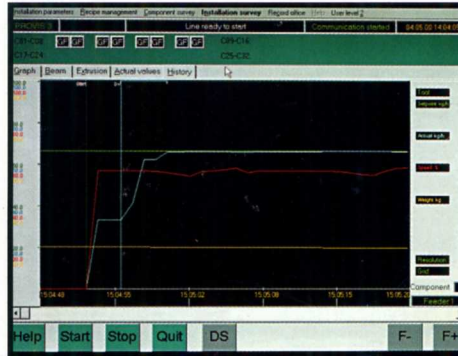
Process Visualization Software (Provis)

Supplied with IPC or on CD-ROM for use on customer's PC under Windows NT® (Trademark of Microsoft Corp). Menu driven software operates up to 32 feeders.

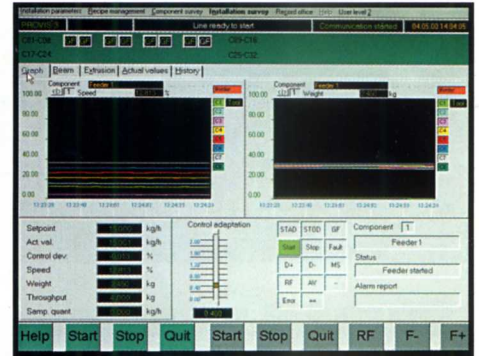
Provis software includes the diagnosis/maintenance software (SmartService).



Recipe Page



Feeder History Page



SmartService Page

Connectivity to other graphics via Microsoft DDE

Brabender Provis has connectivity with other standard HMI packages such as Intellution (Fix DMACS), Wonderware (InTouch), and Allen Bradley (RSView) via Microsoft DDE.

