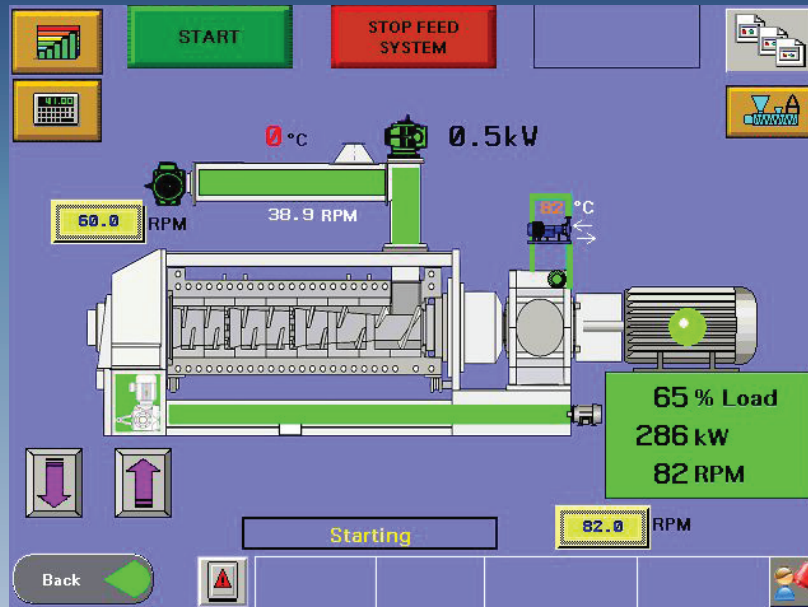


Compress V Control

A Sterling Series Option



Compress V is a PLC based control system designed specifically for the control and optimisation of a screw press. It can be extended to control an associated vertical type Stack cooker and is available not only for the Sterling Series, but almost any screw press.

Based on tried and tested industry standard equipment, Compress V continually monitors and controls press operation to achieve optimal process conditions, whilst also preventing situations where the press might become overloaded. Available for presses with both fixed and variable speed main drives, Compress V can also be provided as a stand-alone module to retrofit within an existing plant, using existing motor starting arrangements.

Compress V is housed in a touch screen 'HMI' with a clear graphical display of the press and easy to use menu system, which, coupled with ability for remote access and data logging, means the Compress V system provides real benefits.

For further information contact the De Smet Rosedowns Sales Department.

Rosedowns

desmet ballestra

Info@Rosedowns.co.uk • www.Rosedowns.co.uk

Compress V a Sterling Series Option

Design Basis

System Scope

The Compress V System is specially designed for the control and optimisation of a screw press. It can be extended to control an associated vertical type 'stack' cooker and will manage the interlocking of the press and cooker drives. It can also support the options available for the Sterling Series such as the Cake Breaker, pumps for the gearbox oil cooling system, as well as the temperature and level control requirements of a stack cooker (up to 12 stages).

Press Optimisation

One of the main purposes of the Compress V system is to both optimize and protect the operation of the screw press. Presses with variable speed drive can have their speed automatically adjusted to give optimal load conditions for a capacity set by the operator. Fixed speed presses, on the other hand, are optimised to a given load by means of the variable speed feed screw. In both cases Compress V changes speeds on the basis of the press being either 'full' or requiring more feed material.

Press Protection

An important element of the optimisation routine is to protect from damaging overload situations, which is achieved in the Compress V system by means of 'High Load' and 'Overload' set points. In the event that high loads are detected, Compress V makes small reductions to the speed of the feed screw, followed by larger adjustments if the load continues to rise. In the event of an overload the press will be instantaneously shut down to minimise mechanical damage - the electronic shear pin. Starting of the press can also provide the possibility for normal operating conditions to be exceeded. Compress V manages this with an automatic start up sequence, which is activated when feed is introduced and safely brings the press to its normal operating load.

Key Features

Graphical Display

Comprising a touch screen with clear graphical display of the screw press, the Compress V system shows all of the main operating information and controls on a single view. The display can also be configured to show both English and local languages.

Data Logging

A minute by minute record of the press operation is possible, as is a visual display of operating trends and historical data. Compress V also offers the facility to copy data to a PC, for detailed analysis and archiving.

Remote Access and Monitoring

Remote access to Compress V information and adjustment of press operation is possible by means of a networked PC. Communication from Compress V to other PLC systems is also possible by means of Modbus TCP/IP.

Barring Mode

Presses with variable speed drive can be operated in Barring Mode, which in the correct conditions uses the main drive frequency inverter to rotate the press very slowly and empty it of process material. Whilst in Barring Mode, Compress V monitors the main motor for an overload situation and prevents the possibility for mechanical damage to occur.

Cooker Control

If extended to control a vertical type 'stack' cooker, Compress V gives full interlocking of the cooker drives and independent stop/start control of the aspiration fan. It also controls pneumatically operated inter-compartment doors to maintain meal levels within each stage. Automatic control of steam valves and temperature monitoring at each stage of the cooker also helps to maximize the cooking conditions. An automatic filling routing also make start up as simple as possible.

