Extrol 6032 Microcomputer

Features
• Extrusion process control system utilizing Motorola 68020 VLSI 32 bit microprocessor floating point coprocessor and 1 megabyte of DRAM memory for virtually unlimited processing power.

Main Features
• 19” CRT display with enhanced color graphics. Provisions to add multiple CRTs.
• Industrial “hardened” multifunction keyboard.
• Control console with all computer hardware programmed and tested prior to shipment.
• Free standing floor mounted control panel.
• Storage of material recipes and tuning parameters in EEPROM memory.

Control Features
• PID control on each temperature zone, keyboard access to tuning parameters.
• Manual override on all zones in case of sensor failure.
• Automatic, coordinated speed control for multimotor drive systems. Provides simplified start-up and shut-down procedure.
• Temperature control, display and alarm all heat/cool zones for extruders.
• Temperature control, display and alarm all heat zones for die, adapters, melt pumps and die.
• Temperature control, display and alarm cooling roll zones.
• Temperature monitor, display and alarm on process temperatures.
• Monitor, display and alarm (high and low) process pressures through conventional pressure transducers.
• Monitor, display and alarm drive amps.
• Control and display extruder, melt pump and line drive speeds.
• Integrated gravimetric feeders for weight control.
• Integrated gravimetric blending for formulation and material inventory control.
• Mercury or solid state contactors.
• System expandable through modular design with software upgrades.
• Average thickness and/or thickness profile control via I/R, Beta, Gamma, or capacitance supporting multi gauge heads.

Reporting Features
• Trend reporting via multicolor bar chart is integrated with control system. 600 data points are continuously stored for each variable and can be displayed on demand. Operator determines data time interval and limits from keyboard.
• Product report on demand or with recipe change.
• Shift report on demand or at shift change.
• Electronic mail for communication messages between supervisor/operator or next shift.
• Alarm and event log records type/time event occurred, acknowledged and cleared.
• Dot matrix printer provides hard copy on demand of all data stored in memory.
• Communication link to an IBM compatible personal computer

Safety Features
• Computer error alarm (watch dog timer).
• High/low - deviation and safety alarms for all control zones.
• Thermocouple error alarm.
• High pressure/high load alarm
• High pressure/shutdown.
• Runaway heater alarm.
• Cold start soak alarm.
• Keyed access hierarchy for security of command execution.
Features
• Extrusion process control system utilizing Motorola 68000 VLSI 16 bit microprocessor and 512K bytes of DRAM memory integrated on one CPU board.

Main Features
• 13” CRT display with enhanced color graphics.
• Industrial “hardened” multifunction keyboard.
• Free standing floor mounted control panel with all computer hardware programmed and tested prior to shipment.
• Storage of material recipes and tuning parameters in EEPROM memory.

Control Features
• PID control on each temperature zone, keyboard access to tuning parameters.
• Automatic, coordinated speed control for multimotor drive systems/simplified startup and shutdown procedure.
• Temperature control, display and alarm all heat/cool zones for extruders.
• Temperature control, display and alarm all heat zones for die, adapters, melt pumps and die.
• Temperature control, display and alarm cooling roll zones.
• Temperature monitor, display and alarm process temperatures.
• Monitor, display and alarm (high and low) process pressures through conventional pressure transducers.
• Monitor, display and alarm drive amps.
• Control and display extruder, melt pump, line drive speeds.
• Mercury or solid state contactors.

Reporting Features
• Trend reporting via multicolor bar chart integrated with the control system.
• 300 data points continuously stored for each variable and displayed on demand/operator determines data time interval and limits from keyboard.

Safety Features
• Computer error alarm (watch dog timer).
• High/low - deviation and safety alarms for all control zones.
• Thermocouple error alarm.
• High pressure/high load alarm.
• High pressure/shutdown.
• Runaway heater alarm.
• Cold start soak alarm.
• Keyed access hierarchy for security of command execution.

Options For Model 6016
• Dot matrix printer to provide hard copy on demand of all data stored in memory.
• Communication link to IBM compatible personal computer.
• Thickness gauge control via I/R, Beta, Gamma, or capacitance.

Options for Model 6016P
• Integrated gravimetric feed control for up to 3 extruders.
• Automatic thickness profile control for blown film, pipe, and foam extrusions.