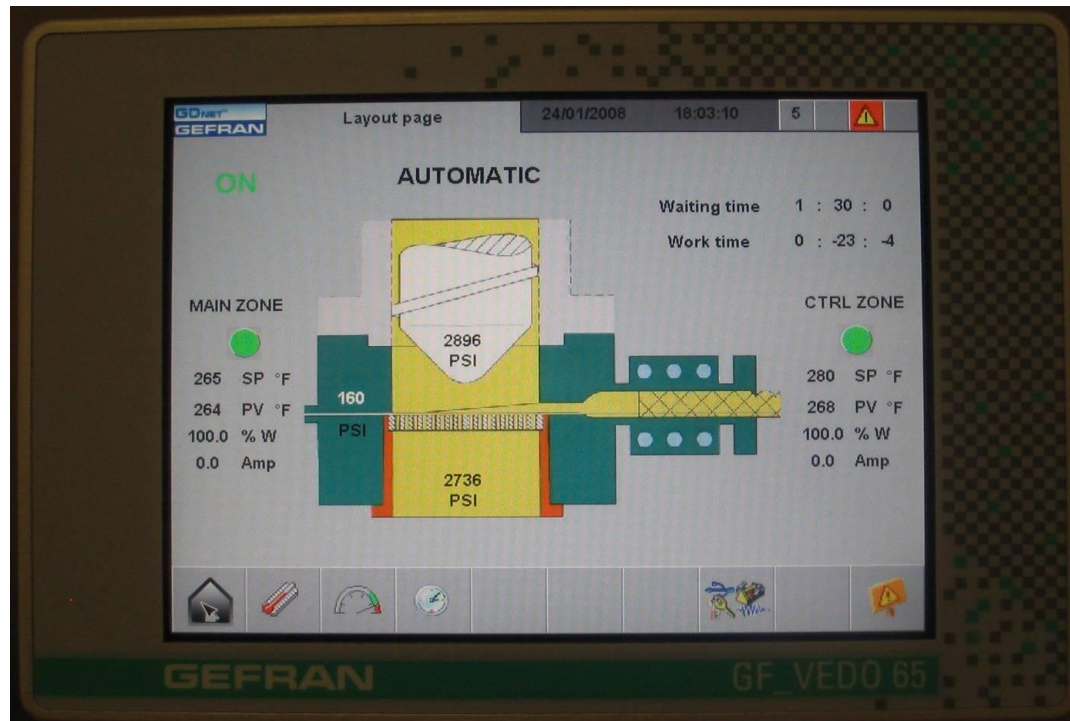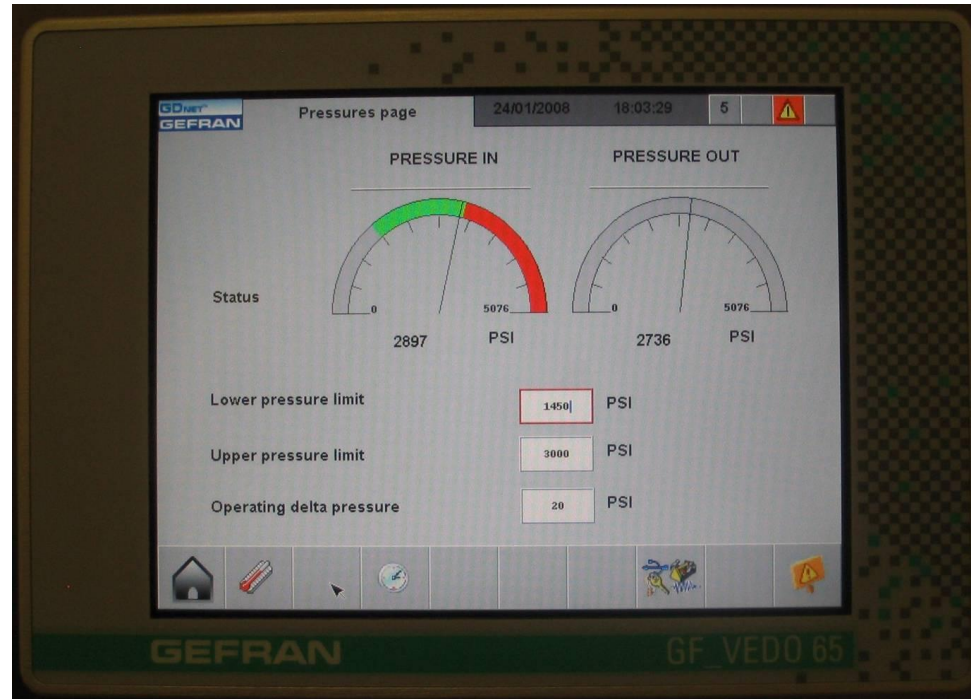# AutoScreen™

AutoController with Extrusion Pressure Control

The AutoController maintains your extrusion pressures within a set pressure delta allowing you to maximize your die's performance by always operating within the die's pressure "sweet spot".
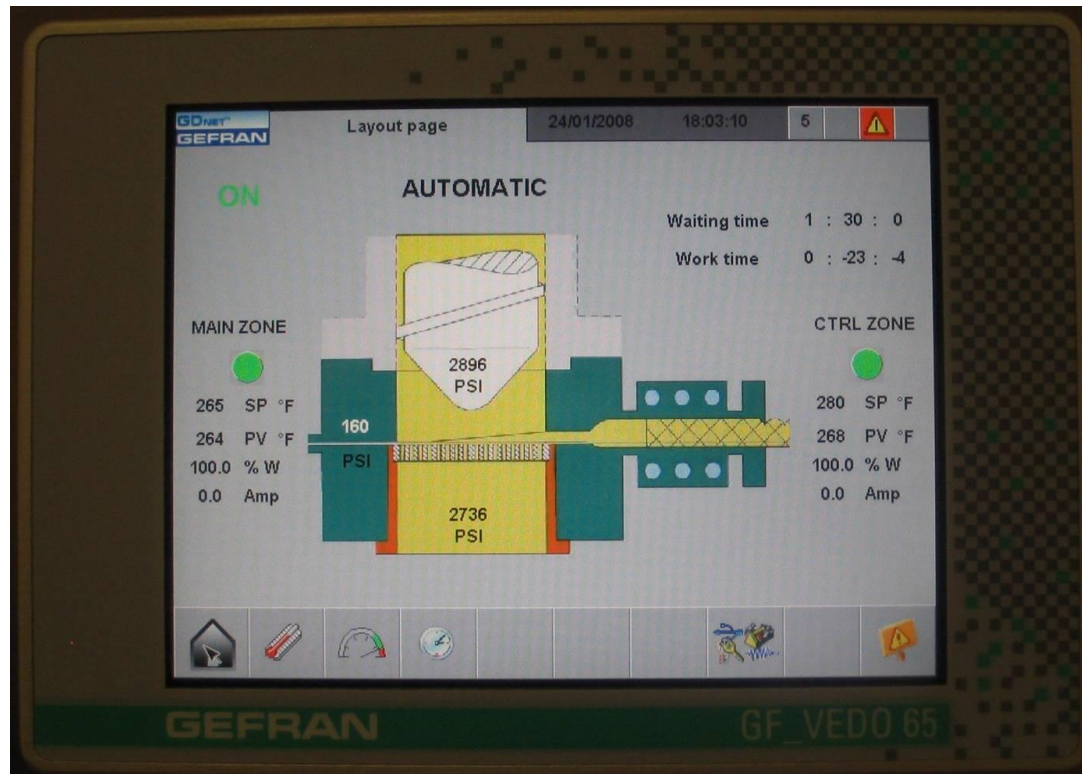
How the AutoController Works

This is the AutoController's touch screen where you select the extrusion pressure delta you want to maintain. Simply enter the desired lower and upper pressure limits and the AutoController automatically sets-up the pressure delta for the AutoScreen™ to control. When the upper pressure limit is approached, the AutoScreen™ automatically introduces new, fresh screen to the breaker plate which reduces the extrusion pressure so the desired pressure sweet spot is always maintained. This screen shows your selected pressure settings and the actual operating extrusion pressures on the inlet and outlet side of the AutoScreen™.

The Rest of the AutoController

This is the AutoController's PLC touch screen panel and cabinet. From this controller the AutoScreen's processing parameters are set-up. You can select to automatically advance the filter screen by a time interval or you can maintain a extrusion pressure delta for maximum die performance.

AutoController's Home Screen

This is the AutoController's home screen which provides an easily readable overview of the processing parameters. It displays the actual pressures, the pressure delta, the actual processing temperatures, the temperature set points, heater efficiencies and timer information. The display panel is a touch screen and is scroll free.

Timers Screen

This is where you set the amount of "on time" for the screen exit block heater in order to get the desired amount of screen movement (.25"-.50"). Depending on the polymer being processed, it is usually set between 2.5-3.5 minutes. This is the work time. The waiting time is the time interval between screen movements. The screen exit heater is off. This is used when operating in the time screen advance mode.

Temperaturers Screen
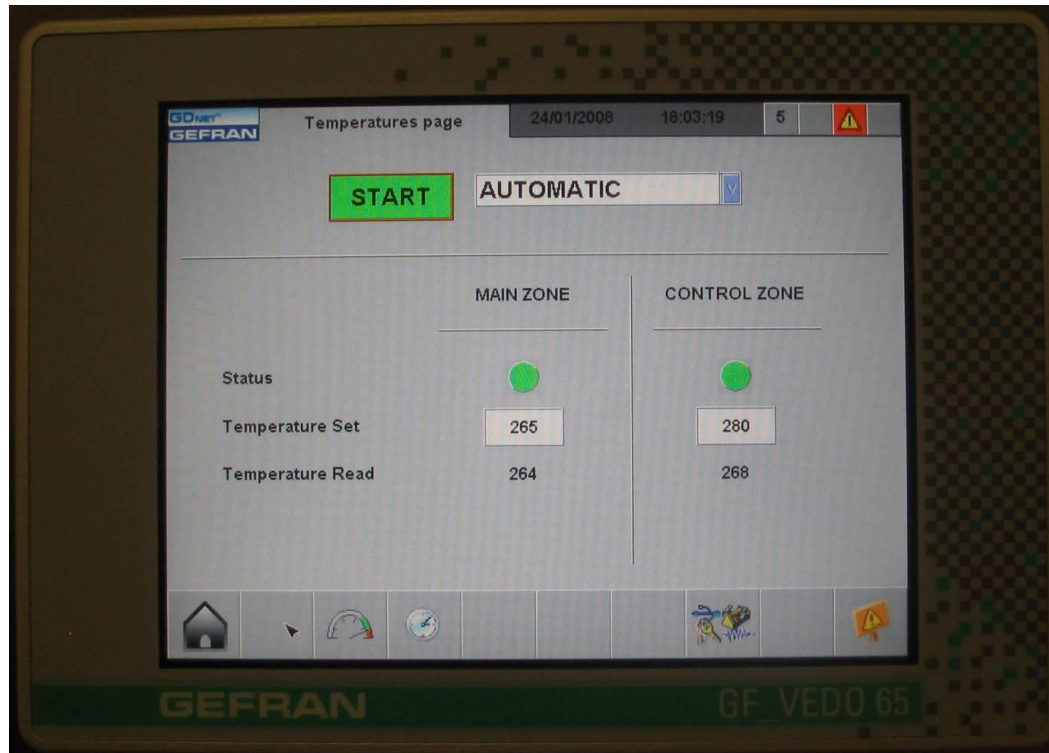
This screen is for setting your desired processing temperatures for the AutoScreen body (main zone) and the screen exit block heater (control zone). It shows the set point and actual temperatures. There is no need to add additional temperature controllers to your extruder panel.

Utilities Screen

This screen shows a variety of utility information and is where you set the controller's operator language.

AutoController's Genfran GFX-4 Controller Specifications

GEFRAN

GFX-4
4 LOOP MODULAR POWER CONTROLLER

Main features

4 independent loop control unit.
Compact, ready to use, equipped also with fieldbus interface.

Unit consisting of:
- Controller
- 30, 60, 80kW solid state relay
- Current transformers (one or four)
- Fuses-holder (option)
- 4 universal main inputs
- 4 heat/cool independent PID
- 4 main output internally wired to the SSR
- 4 auxiliary analog inputs (option)
- 4 configurable output (option): relay / logic / TRIAC / continuous
- 2 configurable relay alarm output
- 2 digital inputs
- Standard digital communication: Modbus RTU
- Optional Fieldbus communication: Profibus DP, CANopen, DeviceNet, Modbus RTU, Ethernet Modbus TCP
- DIN rail or panel mounting

Main application
- Packaging
- Extrusion
- Thermoforming
- Injection moulding
- Textile
- Multizone furnaces

PROFILE

GFX4 is a four independent loop controller, designed to manage electrical power.
GFX4 is a compact unit bounding different technological elements like:
- controller
- solid state relay
- current transformers
- fuses-holders (option)

The final result is a cost saving in terms of space and cabling.
GFX4 consisting of:
- power management unit
- analog and digital inputs,
- analog and digital outputs
- standard digital communication
- integrated solid state relays
- fuses-holder (option)

Geflex controls autonomously the four loop controllers, furnishing a complete diagnostics like the loaded current, the control of the zones, the alarms state.
A specific step by step software tool has been develop in order to assist the product configuration based on the different applications.
Communication with the outside is of primary importance.
Geflex dialogs with the operator terminals according to the most popular protocols: from the simple and efficient Modbus to,

by a second optional fieldbus communication, the by-now indispensable Profibus DP, CANopen, DeviceNet, Modbus RTU, Ethernet Modbus TCP.
The product's furnished with a standard configuration, simple and quickly to modify.
The assignment of different functions to the outputs is very simple.

MODELS
(see table in order code)
3 different sizes, depending on the electric power managed, are available.

GFX4 80
Maximum contemporaneous power up to 80kW@480V.
Each zone could reach up to 19,2 kW.
This limit could be extend to 23,7 kW using the "smart power management" (not all the zone contemporaneous).
Nominal current 40A for zone, not contemporary maximum 57A

GFX4 60
Maximum contemporaneous power up to 60kW@480V.
Each zone could reach up to 15,3 kW.
Nominal current 32A for zone
Fuse holder could be provide as an option.

GFX4 30
Maximum contemporaneous power up to 30kW@480V.
Each zone could reach up to 7,6 kW.
Nominal current 16A for zone
Fuse holder could be provide as an option.

To download Gefran GFX-4 Specifications go to www.gefran.com

AutoController's Gefran GFEDO 65CT Operator Panel

GEFRAN

GF_VEDO 65CT
Operator terminal for machine control

Main features
- 6.5" display
- Resolution 640x480 (VGA)
- Touch screen: resistive, analog
- Connections to industrial buses (CANOpen, Modbus RTU, Modbus TCP)
- Ethernet 10/100 BaseT
- No fans
- No hard disk
- Programmable with: Gefran Automation Builder VedoWin Scada

Main applications
- Machine control:
  - Plastics
  - Packing
  - Wood
  - Metalworking

CE

PROFILE
The GF_VEDO line of operator terminals offers a compact and economic system for machine control.
Machine cycle control [Soft-PLC] and graphic page display [SCADA] are integrated in a single product.
This integration provides a variety of quick and economical automation solutions.
The GF_VEDO 65CT is offered with a 6.5" TFT active matrix display, with resolution of 640x800 pixel (VGA).
The processor belongs to the GEODE family (32 bit), with a minimum of 128 MB to a maximum of 256 MB of RAM, depending on the operating system installed.
A extremely important feature is the complete absence of moving parts: a DOM [DiskOn-Module] mass memory of various capacity [64MB...1G] is used, offering maximum safety even in the presence of strong vibration.
A wide range of peripheral I/O is available:
- 1x RS485 optoisolated
- 2xEthernet 10/100 Base-T
- 2xUSB 1.1
- Fieldbuses keyboard
- Auto-ON

- 1xRS232
- PS 2 Mouse and Keyboard
- CAN layer
The product can be ordered with different operating systems already installed, such as:
- VxWorks
- Windows XP Embedded
This solution allows the creation of various automation architectures (including real time) and the use of software from other suppliers.
The GF_VEDO family includes products with display from 3.5" to 10.4", with or without integrated machine keyboards.
In addition "ready-to-use" application are available, such as:
- GF_PACK_EXTRUSION extrusion
- GF_PACK_INJECTION injection

TECHNICAL DATA

DISPLAY
Type:	TFT Color
No. colors:	262.144
Size:	6,5"
Resolution:	640x480 (VGA)
Luminosity:	500 cd/m2
Contrast:	450:1

TOUCH SCREEN
Type:	Resistive, 4 leads
Life:	>1.000.000 operations
Controller:	integrated

PROCESSOR
Type:	GEODE SC1200
Frequency:	266 MHZ
Core:	x86

MEMORY
System memory (DRAM):	128-256 MB
Mass memory (DOM):	64 MB-1 GB
User memory (SRAM):	2 MB

OS SUPPORTED
VxWorks
Windows XP Embedded

To download Gefran GFEDO 65CT specifications go to www.gefran.com