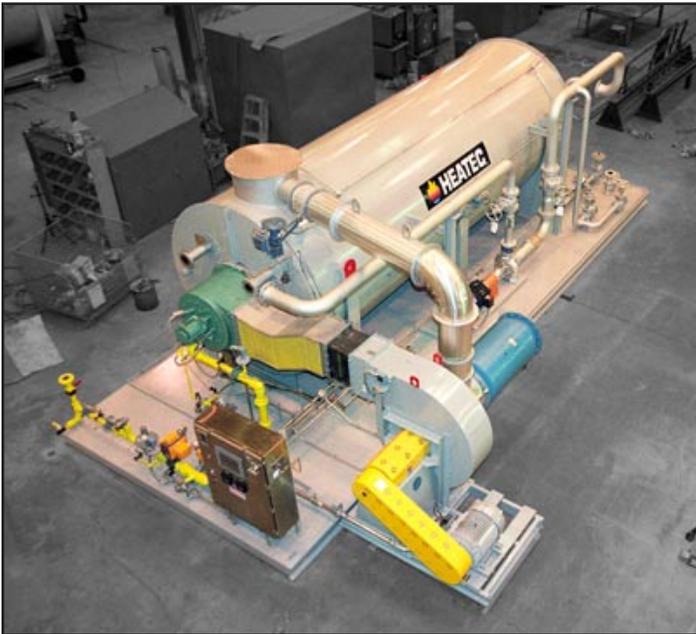
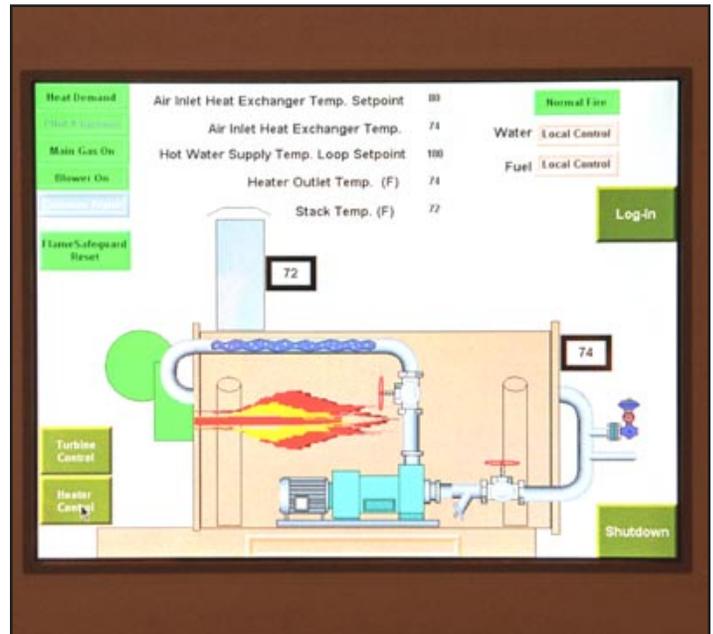


HEATEC BULLETIN

Product news from Heatec Inc., an Astec Company 5200 Wilson Road, Chattanooga, TN 37410 Phones 423-821-5200 800-235-5200 www.Heatec.com



New thermal fluid heater in final stages of assembly at Heatec factory. Stainless steel panel on front of unit houses Allen-Bradley computer, PLCs and other electronic components.



Allen-Bradley touch-screen display depicting the heater and key components. It also shows temperatures and set points. The burner flame and fluid flow are animated for emphasis. Other screens may be selected to show other states.

Heatec uses new computer technology for heater controls

We are now applying recent developments in computer technology to the operating controls of our heaters. In the past, control of a heater was pretty much limited to the site where the heater was installed.

Operators could learn the status of the heater only by watching instruments mounted on the heater or nearby. They could adjust the heater only by re-setting controls on the heater. Troubleshooting often required our service technicians to travel to the site where the heater was installed. All that is changing.

We have developed new controls available as an option on new industrial and asphalt heaters. The new controls take advantage of the recent developments in computer technology. The controls include PLCs (programmable logic controllers) and an Allen-Bradley industrial computer running the Microsoft Windows CE operating system.

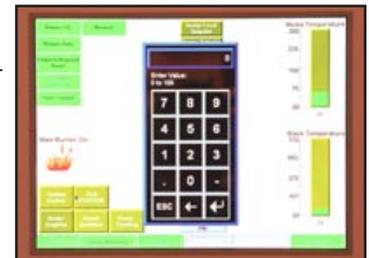
The computer has a touch-screen color display. The display screen uses TFT (thin film transistor) LCDs like most lap-top computers today. It can display virtually any type of graphic image as well as alpha-numeric information.

We have programmed the computer to display graphic images depicting the heater and its components. Some of the images are animated. The operating states of various heater components are displayed as bar graphs, curves, alpha-numeric information and as simulated analog instruments. Operating states show temperatures, flow rates, amp-draw, fluid levels, set points, etc.

The computer also performs *trending*, which provides a history of the heater operation over a period of time, somewhat similar to the old chart recorders. This information is invaluable for trouble shooting and tweaking controls. The touch screen is used to control starting and stopping of various components as well as for entering set points.

These new controls not only provide unprecedented visibility of the heater operation, but provide for virtually unlimited remote monitoring and control. It simply requires connecting the computer of the heater to a network communication system or to an internet service. This allows controlling and monitoring the heater operation from one or more control centers at the site where the heater is installed.

Moreover, it allows Heatec to take over control of the heater and troubleshoot it from virtually anyplace there is an internet connection. Thus, problems can be analyzed and fixed without traveling to the heater site. This could save considerable time and money.



Another screen includes a key pad for changing set points. Simulated buttons allow other conditions to be selected for display. Bar graphs depict current temperatures and operating ranges.



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