

# LEGACY CONTROLS?



**When it's time, trust G-M to extend  
the life of your G-M furnace.**

**G·M  
ENTERPRISES**

A NITREX COMPANY

**MASTERING STRENGTH.  
WORLDWIDE.**

# UPGRADING JUST GOT EASIER

From a cost-effective retrofit to a new control system platform, G-M Enterprises state-of-the-art upgrade solutions will help take your G-M vacuum furnace into the next generation — boosting furnace performance and process reliability, while ensuring compliance to the latest quality and safety standards. Today, through our affiliation with leading controls expert UPC-Marathon (UPC), G-M customers have access to more solutions that can help future-proof their business.

Take a closer look at the choices below or contact our team of upgrade experts to help you find the right solution for your next modernization project.



OVERVIEW			
Pricing	Contact us today for details	Contact us today for details	Contact us today for details
Installation Pricing	Contact us today for details	Contact us today for details	Contact us today for details
Lead Time	8 weeks	10-12 weeks	10-12 weeks
Warranty	1 Year Standard	1 Year Standard	1 Year Standard
FEATURES			
Supervisory Control System	<a href="#">Protherm 710</a>	<a href="#">Protherm 710</a>	Wonderware
PLC	Existing	Siemens S7 1200 / Allen Bradley CompactLogix	Allen Bradley Compact LogiX
HMI	14" Touchscreen	14" Touchscreen	19" Touchscreen
High Limit Temp Controller	Included UPC AE06 High Limit	Included UPC AE06 High Limit	Included Honeywell UDC-2500 High Limit Safety Instrument
PID Loops	4x4 loops	4x4 loops	8 loops
Recipes with Ramp and Soak in Same Segment	Not available	Not available	Included
PLC Monitoring (with access to PLC Logic)	Included	Included	Included
e-Trim	Included	Included	Included
Paperless Chart Recording	Included	Included	Included
Recipe and Data Storage	Up to 1000 recipes Unlimited storage with <a href="#">Protherm 9800</a>	Up to 1000 recipes Unlimited storage with <a href="#">Protherm 9800</a>	Up to 5000 receipts Unlimited storage
Automatic Leak Test	Yes	Yes	Yes

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	UPC CONTROL PANEL RETROFIT PLATE	UPC CONTROL SYSTEM	G-M OEM CONTROL SYSTEM
<b>CONVENIENCE</b>			
One Button Startup	Yes	Yes	Included
Edit Running Recipe	Yes	Yes	Included
Encrypted Files for Data Logging/Storing	Pdf files Standard Extra encryption available with Protherm 9800	Pdf files Standard Extra encryption available with Protherm 9800	LGH files
Updated Prints	Limited	Electrical	Full
Compatibility	All Furnace Brands	All Furnace Brands	All Furnace Brands
SCADA Compatible	Yes Recommended: <a href="#">Protherm 9800</a>	Yes Recommended: <a href="#">Protherm 9800</a>	Yes Recommended: <a href="#">Protherm 9800</a>
<b>ACCESSORIES</b>			
Element Failure Detection	Extra	Extra	Included
Panel Mounted Analog Amp Meters	Extra	Extra	Included
Vacuum Instrument	Extra	Extra	Televac MX200
TUS TC Jacks on Panel	Extra	Included	On Furnace/Option on Panel
Uninterrupted Power Supply (UPS) for PC and PLC	Optional 30+ minutes	Optional 30+ minutes	Yes, 30 minutes
Furnace Status Stack Light	Not Available	Included	Included
<b>COMPLIANCE</b>			
2750E - T/C Certification	Yes	Yes	Yes
CQI 9 - T/C Usage Logging	No	Yes	Yes
NFPA Safety Compliant	Yes	Yes	Yes



## Beyond Vacuum



Our team of engineering and control design experts has the knowledge and expertise to retrofit and upgrade all furnace types and brands for a variety of heat treating processes - adding important capabilities and functionalities to older furnaces without the high cost of buying brand-new. All upgrade packages incorporate Protherm™ platform products to bring equipment and software to the latest specifications and industry standards.



## ABOUT US



NITREX is the lead provider of fully integrated heat-treating solutions and technologies globally. The company operates 3 business units - Nitrex Turnkey System (NTS) a leader of turnkey nitriding, nitrocarburizing and vacuum heat treat systems; Heat Treating Services (HTS) a worldwide network of commercial heat-treating service centers; and UPC-Marathon (UPC), a leading provider of controls upgrade and automation solutions for heat treating and combustion. We operate and service customers from 14 locations across the world and through a global network of representatives and licensees. [www.nitrex.com](http://www.nitrex.com) | [www.group-upc.com](http://www.group-upc.com) | [www.gmenterprises.com](http://www.gmenterprises.com)