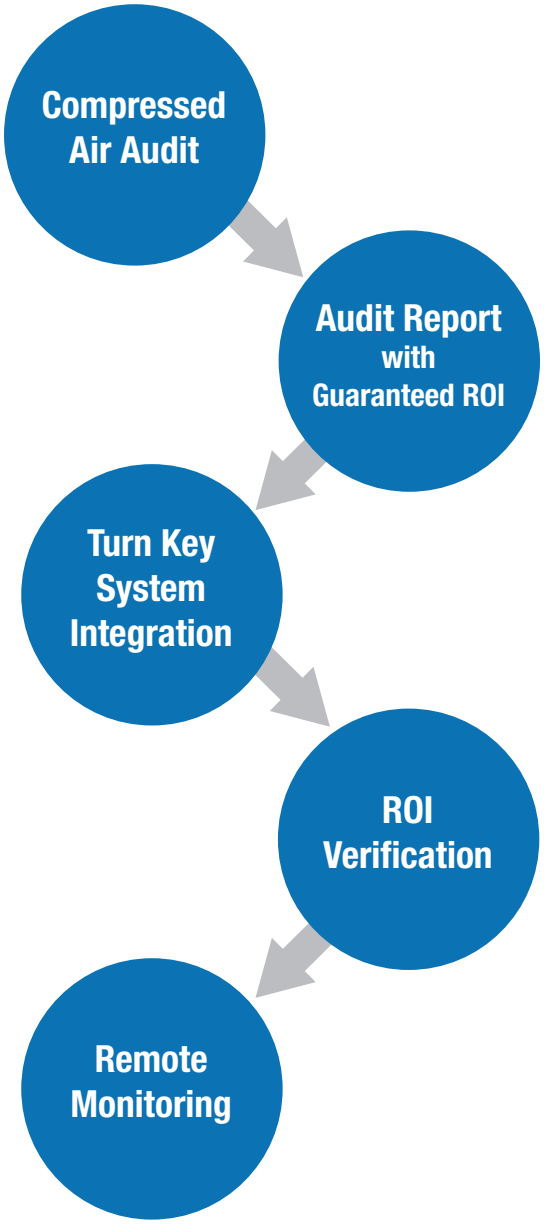
Integrated Compressor Automation

Energy Savings Guaranteed.

iZ Systems
guaranteed compressed air solutions

It's All About Control



The iZ automation system monitors and controls your entire compressed air system. Our automation system fully utilizes the efficient trim capability of VSD and Variable Displacement and centrifugal compressors. Maximizes the efficient use of remote compressors to balance system pressure.

Our advanced automation system monitors your air compressor controls parameters, quickly turning off compressors when production air demand declines thus maximizing energy efficiency; saving up to 35% or more energy consumption.

Using rate of change technology and production process monitoring techniques, iZ automation anticipates rapid changes in air demand to protect system pressure and compressors.

Our automation system delivers critical information in a variety of formats and can be viewed from anywhere on your mobile device.

TYPICAL MULTI-COMPRESSOR	BEFORE	AFTER
Header Pressure (psig)	90 - 112	90
Online Compressor HP	600	<400
Online kWH	450	310
Compressed Air Operating Cost	$315,000	$217,000

30% Energy savings is common

Better Air Delivery

Knowledge Saves Power

Information at your fingertips.

Return on Investment is Tailored to Meet Your Requirements.

Usually Less Than 2 Years

iZ Systems is so confident our automation system can significantly improve the operating efficiency of your compressed air system that it's guaranteed.

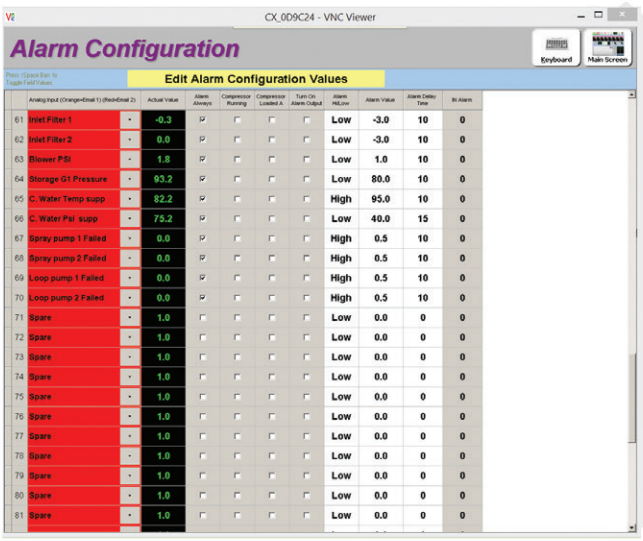
Compressor Operating Cost - 8000 hours

kWh Cost	Compressor HP 50	100	150	200	250
0.04	$12,974	$25,948	$38,922	$51,896	$64,870
0.06	$19,461	$38,922	$58,383	$77,843	$97,304
0.08	$25,948	$51,896	$77,843	$103,791	$129,739
0.10	$32,435	$64,870	$97,304	$129,739	$162,174
0.12	$38,922	$77,843	$116,765	$155,687	$194,609
0.14	$45,409	$90,817	$136,226	$181,635	$227,043

Save Energy

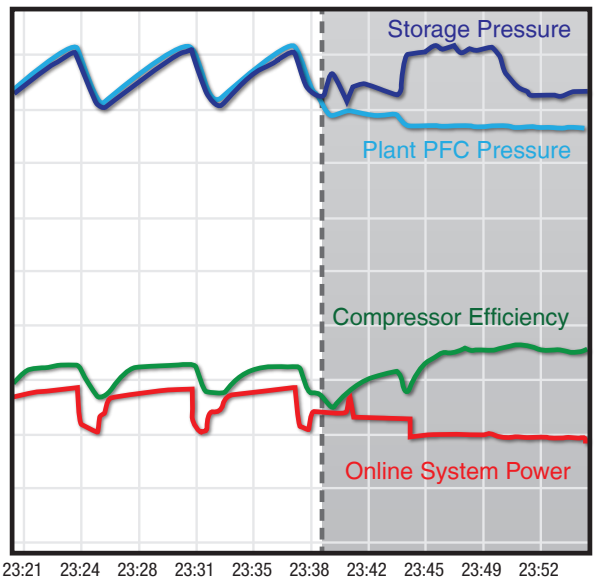
Energy Trends

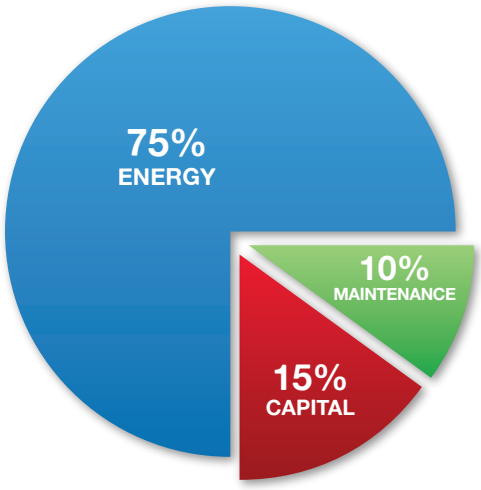
SIMPLE INTERCONNECTIVITY TO PLANT NETWORKS AND DCS SYSTEMS



All analog, alarms, and set-points, are menu driven to provide a user friendly interface that eliminates custom programming.

Graph at right shows the effect of a flow control valve and storage. (Automation is used before and after the valve is turned on). Downstream plant pressure is set via the flow controller. Along with adequate system storage, the PFC allows online compressors to meet normal production demands while storage is used to satisfy peek plant air usage. As a result, f compressor HP is reduced and true energy savings is achieved.





Over a 10 year period the total cost of a compressor can be split as 75% energy, 10% maintenance and 15% capital.

Reduce Costs

Detailed Information

DROP DOWN MENU DRIVEN SETPOINTS ELIMINATES CUSTOM PROGRAMMING

CX_0D9C24 - VNC Viewer

Edit Compressors

Recall | Save | Keyboard | Main Screen

Edit Compressor Setpoints

Node	1	2	3	4	5	6	7	8	9	10	11	12	13
Max Number Of Stages	2	3	3	2	2	2	2	2	2	2	2	0	0
Is a Base Compressor	Trim	Trim	Trim	Trim	Trim	Trim	Trim	Trim	Trim	Trim	Trim	Trim	Trim
Start Is Maintained	Pulsed	Pulsed	Pulsed	Pulsed	Maintained	Maintained	Maintained	Maintained	Maintained	Maintained	Pulsed	Pulsed	Pulsed
Stop Is Maintained	Maintained	Maintained	Maintained	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed
Load A Is Maintained	Maintained	Maintained	Maintained	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed
Load B Is Maintained	Maintained	Maintained	Maintained	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed
Unload A Is Maintained	Maintained	Maintained	Maintained	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed
Unload B Is Maintained	Maintained	Maintained	Maintained	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed	Pulsed
Pressure Switch Is	Normally Open	Normally Open	Normally Open	Normally Open	Normally Open	Normally Open	Normally Open	Normally Open	Normally Open	Normally Open	Normally Open	Normally Open	Normally Open
Max Press Based Off	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Plant	Plant	Plant
Auto Fault Reset Time (Seconds)	30.0	30.0	30.0	0.0	30.0	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0
Max Auto Fault Resets	1	1	1	0	1	1	1	1	1	1	0	0	0
Power Factor Loaded	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Power Factor Unloaded	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Min Centac IGV (%)	0.0	10.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Centac IGV (%)	0.0	85.0	85.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IGV Cycle Time (sec)	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IGV Change Amount (%)	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IGV Minimum Amps	0.0	104.0	104.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IGV Maximum Amps	0.0	105.0	105.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IGV Gain	10.0	20.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0

Easy remote monitoring

Improve Production

FEATURE	IZ SYSTEMS SCADA	IZ SYSTEMS SCADA+	IZ SYSTEMS ENGINEERED
Max Number of Compressors	6	8	Unlimited
Open Architecture—PLC & Components	std	std	std
Touch Screen High Res Display	15”	15”	24”
Nema 4 Enclosure	std	std	std
Serial Connections	3	4	Unlimited
4 - 20mA Analog Inputs	4	6	Unlimited
Remote Alarm Output	std	std	std
Panel Dimensions	30”x30”x12”	30”x30”x12”	36”x36”x12”
ProxiCast Cell Modem - remote monitoring	opt	std	std
Graphic Main System Display	std	std	std
Trending Screen for all analog inputs	std	std	std
Compressor Setup Screen	std	std	std
Storage of Trended Data (5+ years)	std	std	std
Battery Backup of Automation - releases automation to local compressor controls	std	std	std

iZ Systems will provide a complete plant compressed air audit study, resulting in a detailed technical analysis. iZ Systems will produce a custom design incorporating the iZ Automation system, compressed air equipment, vacuum air systems, and any ancillary equipment needed to fulfill the custom-designed system. iZ Systems will assist with the installation to ensure the system performs to the designed specifications. Following installation, iZ Systems will provide technical support and advice for the maintenance and repair of the compressed air and vacuum systems. When completed, the iZ Automation provides centralized coordination of the entire compressed air system. It selects the optimal combination of compressors to maximize efficiency while supporting the variations in air demand in your specific system. The iZ system understands and fully utilizes each compressor's capability via a series of 100+ variables for each machine that provides maximum flexibility, whether it is a VSD or positive displacement rotary screw, centrifugal, or reciprocating compressor. The combined efficient turndown of each compressor is utilized to match the air demand to a specific period of time to provide the trending and energy reporting to analyze and evaluate its performance as desired. Interfacing with external information systems is simple and allows all compressed air data to be associated with production and other process information.

iZ Systems
guaranteed compressed air solutions

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