

# **Sullivan**

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# **Palatek®**

*Above & Beyond*



**MetaCenter**  
**Complete Compressed Air**  
**Management System**



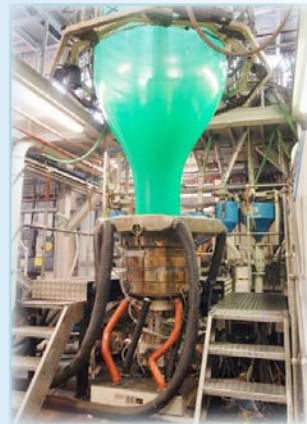
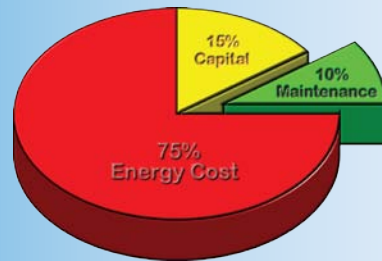
## Products To Improve Efficiency In Compressor Control

MetaCenter products are used to fully integrate compressed air systems on a production site, optimize air generation and manage key aspects of the system with detailed, and easy to use, visual software.

Put quite simply, MetaCenter products can be used to operate air compressors more efficiently. Even if a maintenance team or a compressed air supplier believes the system is as efficient as possible (this includes using new VFD compressors) it invariably isn't! Using an autonomous control and management system to match efficient compressed air generation precisely with demand - it can be...

### Key Saving Opportunities:

For multiple compressor installations, these products can reduce energy usage by well over 30%, typically delivering savings in the tens of thousands of dollars per year.



### Manufacturing Examples:

- Bottling plants
- Automotive manufacture
- Automotive components
- Paper and printing works
- Pharmaceuticals
- Food processing
- Aggregate processing carpet mills



Over 5,000 installations to date, each one meeting or exceeding its predicted energy, cost and carbon reduction targets.

### Key Product Advantages

- Short return on investment
- VFD integration
- Intelligent compressor selection
- Management reporting
- Site systems integration
- Condition monitoring
- Event and alarm routing via email and texting with TX.

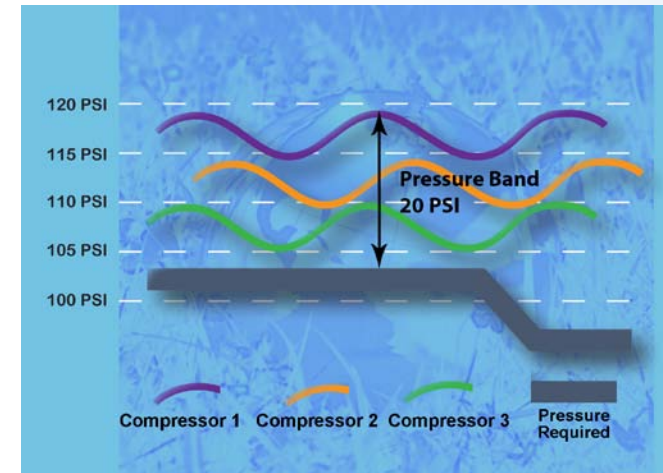
### Hit your Key Performance Indicators (KPI's) for:

- Reducing energy cost
- Reducing carbon foot print
- Reducing CO2 emissions
- Increasing the company's green credentials

## Energy Savings: Minimized Pressure Band

Significant energy savings can be achieved by operating all the available compressors within a single and tight pressure band.

### Classic Cascade Control Without MetaCenter



Without MetaCenter:

- Higher pressure than required for correct operation
- No flexibility in the choice of working and back-up compressors.
- Significant artificial\* demand therefore over-consumption

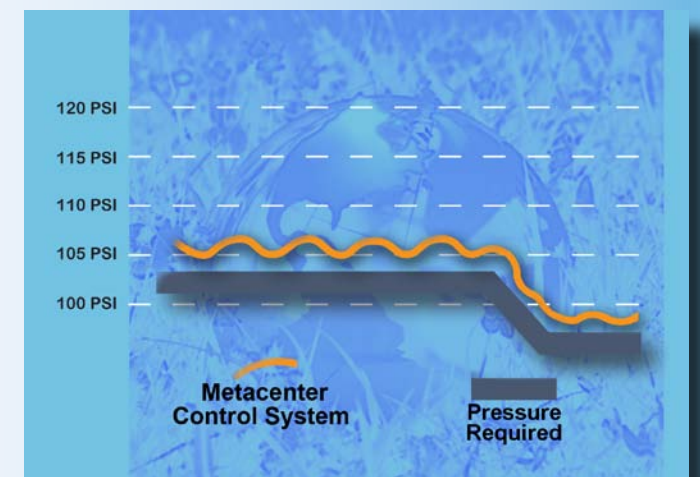
\* An air demand given more pressure than it needs, will consume more air than it should.

## 1 PSI Pressure Reduction = Saving 0.5% of Total Energy Consumption

With MetaCenter:

- The pressure band is reduced (min 3 PSI) and adjusted to the pressure required.
- Turning on compressor only when needed. Pressure schedules and automatic compressor stop.
- Rotation of back-up compressors
- Reduced artificial demand therefore significant energy savings.
- Control of positive displacement compressors regardless of the make, type, capacity or control system.

### All Compressors Within One Pressure Band With MetaCenter





## Energy Savings: Optimized Control

MetaCenter continuously strives to match compressed air generation with demand. As such, it will only run the compressors which are required to fulfill the air demand.

**Four different control strategies** can be selected, depending on the site configuration:

1. **Timer Rotation:** All compressors in the system will be rotated periodically in FILO (First In, Last Out) mode. The rotation timer can be programmed between 1 and 168 hrs or on a fixed time and day of the week (P4, SX & XC only)

		Compressors			
		1	2	3	4
Rotations	1	A	B	C	D
	2	D	A	B	C
	3	C	D	A	B
	4	B	C	D	A

2. In **Equal Running Hours** mode, the MetaCenter will equalize the running hours of all compressors. On each rotation, the compressor with the least number of operating hours becomes the first compressor to load, and the compressor with most operating hours becomes the last compressor to load.

3. **FIFO** (First In, First Out) control mode can be used for control of reciprocating compressors. (P4 only)

4. The **Energy Control** mode is recommended whenever compressors of different size and/or different regulation type (fixed speed, variable speed or variable displacement) are available. In this mode, the MetaCenter will dynamically select the compressors to match air demand as closely as possible in order to obtain optimum efficiency!



**Additional features offering increased flexibility:**

**Priority Settings** allow compressors to run as a designated lead compressor or back-up compressor. Compressors in the same priority group, will be rotated according to the selected control mode.

**Real Time Clock & Table Technology** offer the flexibility to automatically change pressure band, change compressor priorities and start/stop compressor system at any time throughout the week.

The **System Pre-fill** function will prevent all compressors from starting up after the compressed air system has been shut down for a while. In pre-fill mode, only manually or automatically selected compressors will pressurize the network in a given time period.



By reducing the off load running hours:

The total running hours of the compressors will also be reduced, extending the life time of the internal components, reducing maintenance costs and increasing system reliability.

## Choose The MetaCenter System That Is Right For Your Needs

Depending on the number of compressors in your system, the number of rooms they're located in, and their regulation type, MetaCenter offers 6 different compressor master control platforms. MetaCenter DC02, DC03, DC04, P4, SX & XC.

MetaCenter	DC02	DC03	DC04	P4	SX	XC
<b>Maximum number of compressors:</b>						
2	✓	✓	✓	✓	✓	✓
3		✓	✓	✓	✓	✓
4			✓	✓	✓	✓
12					✓	✓
24						✓
<b>Type of compressor regulation:</b>						
Fixed Speed Compressor	✓	✓	✓	✓	✓	✓
Variable Frequency Compressor					✓	✓
Variable Displacement Compressor					✓	✓
<b>Operating Mode:</b>						
Timer Rotation	✓	✓	✓	✓	✓	✓
Equal Running Hours				✓	✓	✓
FIFO				✓		
Energy Control					✓	✓
<b>MetaCenter Functions:</b>						
Priority Selection	✓	✓	✓	✓	✓	✓
System Pre-fill				✓	✓	✓
Pressure Balancing (for multiple compressor rooms)						✓
Zone Control (for multiple compressor rooms)						✓
<b>Inbuilt Real Time Clock:</b>						
Schedule to Start/Stop System				✓	✓	✓
Pressure Band Change (through table technology)				✓	✓	✓
Compressor Priority Change (through table technology)				✓	✓	✓
Operating Mode Change (through table technology)				✓	✓	✓

### Add To Your MetaCenter System

- MetaCenter I/O for control of ancillary compressed air equipment and monitoring of dryers, filters, drains, pressure, pressure differentials, dew point, temperature, flow, power, vibration, etc.
- MetaCenter TX for visualization and analysis over the Internet and/or a communication gateway for Field Bus integration with a factory automation system.

# MetaCenter System Overview

Efficient control of Sullivan-Palatek and other brand air compressors.

Fixed speed, VFD, Lubricated or Oil Free Screw, Scroll, Piston, Vane, Single or Multi Step, Low, Medium and High Pressure.

From 2 up to 24 compressors located in one or multiple compressor rooms.

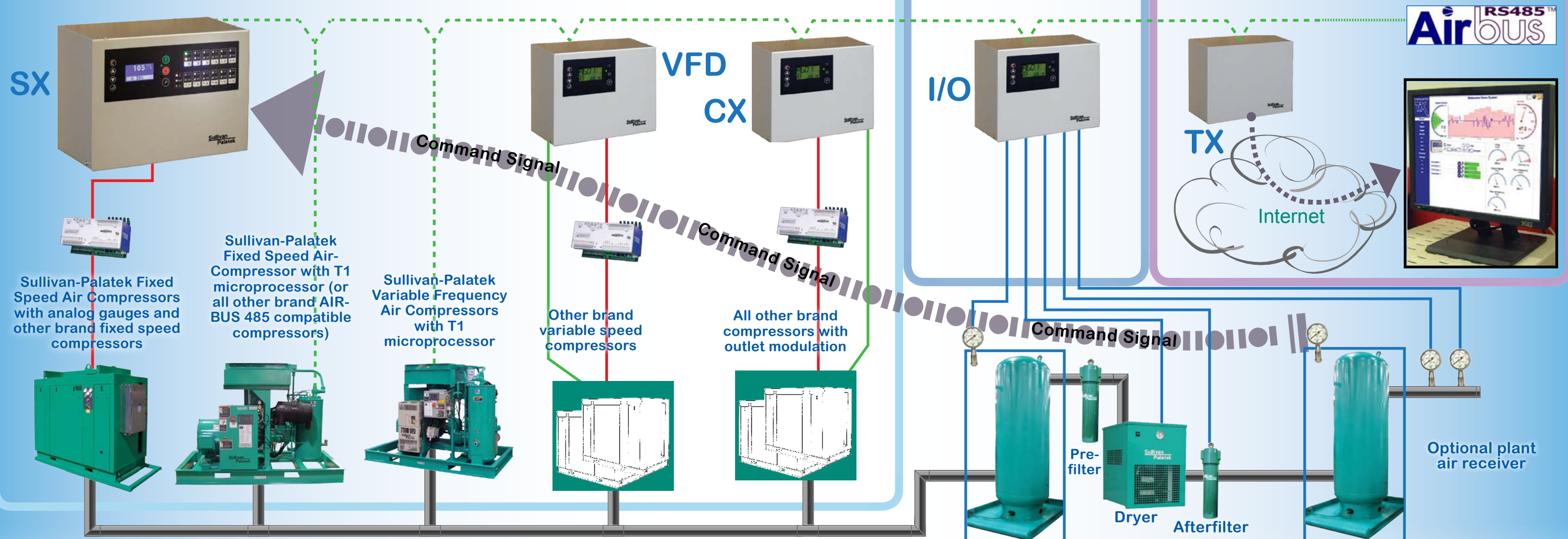
Monitoring of dryers, filters, drains, pressure, pressure differentials, dew point, temperature, flow, power, vibration, etc.

Controlling of ancillary compressed air equipment.

Web based visualization and analysis of the entire MetaCenter system.

Event and alarm routing via email and texting with TX

MODBUS, DEVICENET and PROFIBUS Gateways for communication with factory automation systems.





# Sullivan Palatek



## Electric Driven Industrial Air Compressors

5-10 HP Belt Driven  
15-40 HP Direct Drive  
40-400 HP Updraft  
High and Low Pressure  
Variable Frequency Drive Designs  
Specialty Packaged Systems

Piston Air Compressors  
Splash Lube  
Pressure Lube  
Gas Driven

Compressed Air Accessories  
Refrigerated Air Dryers  
Desiccant Air Dryers  
Air Filters

Condensate Management Systems  
Air System Analysis  
System Management Solutions

## Diesel Driven Portable Air Compressors

185 cfm to 1800 cfm  
John Deere, Caterpillar and Cummins Engines  
3 year Air End Warranty  
Utility Models  
Offshore Models

High Pressure Portable and Skid  
950/350 to 1150/350

Instrument Quality Air  
375H to 1600H  
Skid Mount Aftercoolers  
Skid Mount Dryers and Aftercoolers  
Construction Electric 50 to 400 HP  
Electronic Parts Orders Through  
SmartEquip™

Full Line of Pneumatic Tools  
Hoses and Accessories

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