TAS®

Mission Critical Solutions

THE TAS® MODULAR MISSION CRITICAL SOLUTION

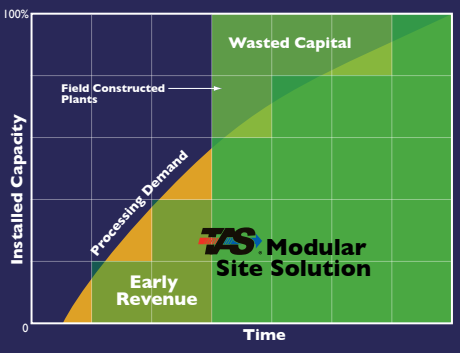
The Benefits of a Modular System

TAS' complete, modular data center can be installed on your project site in 25-50% of the time it takes to field construct an on-site data center. The TAS modular data center is built in our ISO 9000-compliant factory, and shipped to your project site.

These revolutionary data centers are the product of thousands of hours invested by our engineers to optimize and modularize the traditional data center. Each module is designed for high operating efficiencies providing state of the art PUE (Power Usage Effectiveness). Our designs are based upon extensive customer input, are highly cost effective, and maximize six key design factors:

- Operational efficiency
- Reliability
- Cost/Benefit
- Space utilization
- Maintainability
- Ease of installation

TAS modular data centers are scalable allowing you to stage your capital deployment. As processing demand grows, capacity is easily added through the installation of additional modules.



An entire TAS data center can be installed and commissioned in a shorter period with less site interference than traditional building methods. The modular building blocks are provided with the ability to monitor all functions. The TAS data center, consisting of the various modules, can function as a complete integrated system, or individual modules can work within existing or planned data centers.

From data modules to 'off the grid' power-generation modules, to cooling modules, each modular building block offers the flexibility to meet your operational needs. Even though the footprint is small, there is ample working space. What's more, each TAS module is engineered to optimize your 'Total Cost of Ownership' with a balance of initial cost and energy-efficiency to consistently deliver predictable results.

Choose a Purpose Built Module or an Entire M

The Data Module

This module is specifically built to take the place of the traditional data center white floor. It contains server-ready racks – fully accessible from front and back – pre-piped cooling systems, pre-wired electrical, fire detection and suppression, all contained within a purpose built modular enclosure. The module is optimized for efficiency and space and employs the latest in heat rejection technology. Each module is pre-engineered and built in our factory, yet each can be customized to your specific capacity and redundancy requirements.

The Cooling Module

Cooling a data center is mission critical and TAS is the ideal choice for this task. TAS has been designing, engineering and building modular cooling plants for over ten years. TAS has installed hundreds of these innovative systems worldwide — it's our core business and we have the engineering, design and manufacturing of these modules down to a science.

A highly efficient cooling plant can reduce operating costs by up to 40%. Optimizing the cooling plant means reducing energy consumption, making it highly efficient and decreasing total life cycle cost. Redundancy requirements for each project are addressed individually.

Our extensive experience in providing modular cooling plants for data centers has enabled us to work out the kinks and avoid common risks. We understand that each project has unique requirements. That's why TAS offers a wide array of options, including water-and air-cooled options as well as customization for free cooling options to make use of colder ambient air conditions. The designs of these systems are so advanced that they are standardized and range from 200 refrigeration tons (TR) to 9000 TR, to match any load requirement. For larger loads, multiple cooling modules can be installed in a single cooling loop. In addition,

odular System

The Power Generation Modules

TAS' power generation system doesn't just generate power but generates productive energy, from heat that would otherwise be wasted. This is a Combined Heat and Power (CHP) system. CHP is a highly efficient, clean and reliable approach to generating power and useful thermal energy from a single fuel source.

This system can provide high-quality electricity and thermal energy to your site for cooling or other uses, decreasing the impact of grid power outages and improving power quality for sensitive equipment. TAS' CHP system is so fuel efficient that the useful energy output exceeds the total fuel efficiency of power off the grid.

TAS also produces Advanced Heat Recovery systems. Our patented renewable energy system converts heat generated from waste heat source and converts it into power. The heat could be generated from a prime mover, solar, geothermal, biomass or industrial waste heat. Recovering and using this energy greatly increases your facility's operational efficiency and further decreases energy costs.

The TAS solution is truly green. Because less fuel is burned to produce each unit of energy output, it reduces air pollution and greenhouse gas emissions. Its high efficiency can slash your facility's energy bills while providing security against unstable energy costs. As with all TAS systems, these are pre-engineered, integrated energy modules that can be modified depending upon the energy end-user needs and available renewable energy sources. One or both of our power generation systems can be employed.

Thermal Energy Storage may be used for greater energy efficiency and system reliability. Chilled water can be stored in this reservoir during the night, when power costs are lower, to be used to cool during the day when power demand and costs are high.

The Power Distribution Module

We will supply all electrical distribution gear in modules where this critical equipment is pre-wired, pre-tested and customized per project, packaged and dispensed to the project site for immediate installation. Eliminating much of the field electrical wiring and testing will provide shorter schedules, lower costs and less start up hassle.

The Back Up Power Module

This secondary source of power can be used when the primary power source fails. This module can also be supplied with a fuel management system to make sure that the back-up power supply is in prime condition when called upon.

The TAS Advantage

TAS manufactures modular systems based on highly engineered, standardized product designs optimized for ultra-high efficiency and balanced for cost effectiveness.

As an innovator and industry leader with multiple patents, TAS is recognized for pioneering the development of modular systems in industries accustomed to traditional design/build and on-site construction. TAS modular systems are recognized for high-quality construction, reliability and industry-leading operating efficiency.

TAS serves various markets and has enjoyed significant international success. We are headquartered in Houston, Texas with regional offices in Europe, Asia and the Middle East.

As a single-source provider, TAS leads the industry and stands behind our product through construction schedule and performance guarantees. We are proud to demonstrate our commitment to high-quality design, manufacturing and service of our modular systems, and are committed to exceeding our customers' expectations.

The UPS Module

This uninterruptible power supply or battery back up module can provide emergency intermediate power for instant protection from a momentary power interruption to the data center, until an auxiliary or utility power is available. TAS can deliver this sensitive equipment in purpose built modules, ready for site installation similar to the other modular equipment.

Efficient

Industry leading operating efficiency and highest PUE.

Reliable

Factory built under ISO 9000 processes, all products are tested and quality checked before shipment and commissioned on site.

Economical

Efficient, modular products that are quickly deployed and deliver significant economic benefits.

Time Saving

Factory manufactured and installed on your project site in 25-50% of the time it takes to field construct a data center.

Customized

Chose those modules that suit your project's needs. Each module is pre-engineered and standardized, or can be customized to your specifications.

Space Saving

Small footprint, yet offers ample working space.

Environmentally Sustainable

Efficient use of power means reduced air pollution and greenhouse gases.

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