AMERICAN BUILDINGS
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ONBUILDING

Data Centers

Building Today's Data Centers

Effective data center operation requires a balanced investment in both the facility and the housed equipment. The first step is to establish a baseline facility environment suitable for equipment installation. Standardization and modularity can yield savings and efficiencies in the design and construction of telecommunications data centers.

Standardization means integrated building and equipment engineering. Modularity has the benefits of scalability and easier growth, even when planning forecasts are less than optimal. For these reasons, communications data centers should be planned in repetitive building blocks of equipment, and associated power and support (conditioning) equipment when practical. Organizations need scalable, modular data centers that can be reproduced worldwide with only small regional variations.

Modern data centers try to use economizer cooling, where they use outside air to keep the data center cool. Many data centers now cool all of the servers using outside air. They do not use chillers/air conditioners, which creates potential energy savings in the millions. Locating in cooler climates definitely has its advantages.

Building a state-of-the-art data center can take a year or longer. Waiting that long for additional data handling capacity can hamper growth. As online users embrace resource-intensive applications like streaming video, social networking and sophisticated medical imaging, demands on data centers grow.

Key Questions to Consider Before Building a Data Center

How big is big enough?
The difficult part of this question is not figuring out how much you need – it's figuring how much you need in 5, 10, and 15 years.

Can the building design allow for expansion?
Assuming land isn't the key issue the importance of expandable designs can be critical for future needs.

How much energy will be needed?
Data centers need to be designed with energy scalability in mind to support future installations of very high density rack environments.

What about Green?
What Green technologies and products are available that adapt well for Data Center construction? Is the building manufactured from recycled materials and can it be recycled at the end of its productive use?

How long should it last?
Traditional data centers were built to last 15-20 years, but with today's rapidly changing technologies and compute demands, is this a realistic time frame? Should data centers be designed for longer life?

Who will build it – and what should be asked up front?
How to determine the engineering firm, general contractor, and subcontractors?

"Today, the wholesale data center industry is at a crossroads. It can either continue to produce quite unremarkable "accelerated obsolescence-inspired" designs that box in customers or they can give the enterprise what it wants: Industrial-strength innovation around scability, efficiency and flexibility. Embracing innovation would attract more enterprises into the compelling wholesale model, which would be a win for all of us."

Jeff Rose, Technology Strategist at Vantage Data Centers

Going Green is Easier with Metal Building Systems

Designing and building green data centers can have a significant impact on the environment and a company's bottom line. A green data center is a repository for the storage, management, and dissemination of data in which the mechanical, lighting, electrical and computer systems are designed for maximum energy efficiency and minimum environmental impact.

Metal buildings are the poster child for sustainability and "Green" as steel is the most recycled material on the planet. Recycled steel reduces mining waste by 97%, air pollution by 86% and water pollution by 76%. A typical ABC metal building is manufactured from at least 70% recycled steel and 100% of a typical American building can be recycled at the end of its useful life.

In addition to the recyclability of our buildings, we are committed to an effective environmental policy that helps us manage and reduce our impact on the environment. All ABC divisions are ISO 14001 Certified. Protecting the environment is critical to our operations and the company's long-term success.

Going COOL Saves Money and the Environment

American Buildings Company was the first metal buildings manufacturer in North America to switch to 100% "cool" coatings as standard for ALL roof and wall panels. These coatings help generate lower environmental temperatures reducing smog and the heat island effect. What's more they help reduce cooling costs in hot summer months.

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Metal Buildings from ABC are an Ideal Solution for Data Centers

- Every project is custom designed, engineered, and manufactured
- Projects can range from small to unlimited footprints
- Future expansion is simple and cost efficient
- Metal building from ABC have typical life spans of 30-50 years or more
- Locating in cooler climates can help dissipate heat generated by Data Center equipment
- Insulation levels can be minimized or maximized depending upon HVAC design and requirements
- Exterior building design can be downplayed to blend in with surrounding structures
- Competitive pricing with industry leading pricing guarantees
- Erection time of Metal Buildings from ABC is typicaly much faster than conventional construction
- Assistance in selecting highly qualified general and subcontractors in virtually every market in the country

American Buildings Company

For more than a half-century American Buildings Company has been pioneering the design, manufacture and delivery of metal buildings and roofing systems that set the industry standard. From industrial and commercial structures to tailored projects for the automotive, retail, data and transportation industries, the ABC family of more than 800 authorized Builders has the expertise to exceed expectations for custom engineered metal building projects in a variety of industry segments. ABC delivers a proven combination of products, technology and customer service to accurately execute projects on time and on budget.

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