

Perfection

Sound | Technology | Sustainability

An Allen Organ offers perfection throughout.

This begins with the finest pipe organ sounds and masterful build quality, and flows into all aspects of the instrument.

The Art of Organ Building – Majestic Sound

*“To my eyes and ears the organ will
ever be the King of Instruments.”*

– Wolfgang Amadeus Mozart



Allen Organs Sound Better

Superior organ sound comes from a combination of advanced technology and years of artistic experience sampling pipe organs. Throughout history the organ has been a remarkable combination of technology and traditional music. With hundreds of pipes, early pipe organs were the most advanced products in a community. Modern electronics have enabled the production of pipe organ sound without requiring pipes. Today's finest digital instruments reproduce the grandeur of pipe organs, at significantly lower costs.

Allen's 7th-generation **GeniSys™** technology includes dozens of advanced Digital Signal Processors working in parallel, supercomputer power, offering the most realistic pipe organ sound available from a digital organ. Coupled with a two-decade lead in digital sampling experience over other digital organ builders, Allen Organ Company is the acknowledged leader.

Pipe Organ Sound

Reproducing realistic pipe organ sound requires advanced technology. Allen's technology is proven weekly through its many **combination organs** that include both digital voices and windblown pipes played in the same building.

Proof statement: Listeners have difficulty determining the source of the sounds. A recent Allen combination organ installation in Stockholm, Sweden, is an example comparing, in real-time, Allen's digitally produced voices alongside of windblown pipes. Click the photo to hear for yourself. ►

Today Allen's tonal capabilities go beyond traditional pipe organ sound. Allen Organs can also produce orchestral and other non-organ sounds to increase the instrument's flexibility. With **GeniSys™ Voices** technology, stops can be quickly be changed to dozens of orchestral sounds, as well as traditional organ voices not included in the instrument's standard specification. GeniSys Voices provides organists with the versatility needed for today's ever-changing musical landscape.

click to view GeniSys Voices video

Acoustical Enhancement

The success of any organ is highly dependent on the room's acoustics in which it is installed. Pipe organs were typically installed in large cathedral-like structures with "friendly" acoustics that include hard surfaces to reflect and acoustically mix the sounds produced. The importance of the room on an installation has led to the saying: *"The most important 'stop' on any organ is the room in which it is placed"*. Modern churches typically do not offer this acoustical advantage. In the latter part of the 20th century, in an effort to overcome this challenge, organ manufacturers added digital reverberation to instruments. While an improvement, digital reverb also added unnatural distortions to organ sound. Digital reverberation is no longer the state-of-the-art acoustical enhancement!



Convolution technology utilizes actual sampled acoustics to recreate the sonic fingerprint of rooms, including famous cathedrals. Convolution also reproduces the sonic interplay that occurs between individual pipes played within organ chambers.

Allen's exclusive **Acoustic Portrait™** with *convolution technology* requires massive computing power, approximately 400 million calculations per second. **Unlike artificial digital reverberation, Acoustic Portrait produces the real thing!** This revolutionary technology allows an Allen Organ to perfectly integrate in a building, similar to that of world-renowned pipe organs in large cathedrals.

"Allen's organ speakers emit clean and accurate digital pipe organ sound, making it extremely difficult to tell the difference between the pipes and the digital voices! The advancements in Allen's sound technology are astounding!"

Frederick J. Locker, Minister of Music
St. Joseph Roman Catholic Church, Massillon, Ohio

Voicing Capabilities

Also, advanced voicing capabilities are required so that a digital organ can be properly voiced in an installation. Allen's proprietary **DOVE™** software goes beyond basic voicing, such as stop-by-stop and note-by-note adjustments, found in all digital organs. For example, DOVE offers advanced audio controls including parametric equalization that guarantees an organ can be finely "tuned" in each installation.



[click to view DOVE video](#)

Allen's DOVE program uniquely includes the **SoundMatrix™ Library**, the world's most extensive library of sampled pipe organ sounds. Without requiring any modification to the organ's hardware, digital ranks can quickly be exchanged on site to meet the changing needs of a dynamic music program.

The finest digital organs require superiority in all areas of sound production: sampling technology, sampling experience, acoustical enhancement, and voicing capabilities. Allen Organ Company is the leader in each area, the combination of which results in Allen Organs sounding better.

The Art of Organ Building – Advanced Technology

The organ is the “King of Instruments” not only because of majestic sound, but also because of its incredible dynamic range. The organist interacts with the instrument via the organ console that serves as “command central”. Early pipe organ consoles were limited to their keyboards, a pedalboard and stop controls. Even with these relatively limited controls, changing dozens of stops during a performance was daunting.

In the early 20th century capture combination action systems were added, making preset stop combinations available and freeing up organists to create more expressive music. Since then organ builders have added more sophisticated user interface systems.



“The Allen Organ Company is to be congratulated on the look and feel of the finished instrument, not to mention the sound, the craftsmanship and the man-to-machine interface. It speaks well of Allen’s dedication to the engineering, software development and manufacturing technology required to keep abreast of our ever-changing technical world. We thank you for that and have a prized instrument to prove it.”

Rev. Don Zeiler, Pastor
St. Gabriel The Archangel Catholic Community
McKinney, TX

With the advent of digital technology, organs went through a revolution. Today’s finest digital organs can duplicate the sound of pipe organs. Also, with increasing power, computer processors have enabled enhancements that expand the instrument’s versatility, including more advanced capture combination systems, record and playback capabilities, the addition of orchestral and contemporary voices, multiple stop specifications, and more. However, the additional features increased the number of physical controls, adding complexity to performance. Utilizing these features required understanding huge owner’s manuals and navigating multiple controls.

The challenges brought about by increased capabilities is not limited to just the organ. For example, automobiles now include GPS, Bluetooth, backup cameras, and sophisticated audio and climate control systems that required separate buttons and knobs which distracted drivers. Consumers demanded a better user interface system. The answer: a color touch screen that has become the universal solution for high-tech products.

GENISYS™ Display

Until recently, all organ user interface systems were older technologies that included multiple button and controls. Making changes to organ functions required engaging multiple controls and memorizing menu levels. While most builders still offer this type of interface, Allen Organ Company has introduced a state-of-the-art system with a responsive color touchscreen. **GeniSys™ Display** is intuitive to the point that even guest organists not familiar with the instrument can easily access dozens of important console functions.

In a digital organ the most important task for advanced technology is to enable the production of realistic pipe organ sounds. Technology needs to also enhance the user experience so that organists can focus on creating music, not operating complex controls. A digital organ should today include not only technology that is superior in sound production, but also advanced technology for its human interface system to enhance the artistic experience.

[click to view GeniSys Voices Advanced Mode video](#)

The Art of Organ Building – *Quality, Longevity, and Sustainability*

Allen Organs are Built Better and Last Longer

Quality plays a crucial role in product value. Unique for high-tech products, church organs are expected to last for decades, making **build quality** an even more important metric in determining the product's longevity potential.

Allen Organ Company's quality is legendary with instruments now in their seventh decade remaining in service. ***No other builder can match this record, a result of Allen's build quality and its willingness and ability to support products long after their production has ceased.***

"This new organ is state-of-the-art incorporating all current Allen technologies available, with room for future expansion."

Andrew McKeon, Director of Music Ministries
St. John The Evangelist, Center Moriches, NY

The quality built into a digital organ can be determined through simple observation of the product.

Console Construction

Viewed from the outside, most organ consoles are attractive. However, going "under the covers" and looking inside helps determine its actual quality. Is the wood inside the console finished so that it will not absorb moisture and warp over time? Are key wood components held together by wooden cleats, as in any furniture of quality? Are openings into the console, such as the expression shoe cut out, protected by metal enclosures to keep rodents out that damage circuitry? Shortcuts are unacceptable in any area.

[click to view Competitive Comparison video](#)

Electronic Assemblies

Unusual for high-tech products that are typically included in metal enclosures, an organ console is constructed of wood. To protect electronic circuitry and to ensure that the organ meets strenuous governmental EMI (Electromagnetic Interference) requirements and safety requirements, electronic assemblies in organs should be housed in metal enclosures. Some builders cut costs by eliminating this step in the hope that customers will not look inside the console.

In a world where the quality of most consumer products is similar, the difference between the quality of an Allen Organ and others is remarkable. These differences prove that Allen Organs are built better. They help explain why Allen Organs last longer, offering the greatest value.

[click to view Allen Electronics Tour video](#)

"The console is stunning, yet timeless; constructed of solid hardwoods with a beautiful Walnut exterior and a satin black finish interior. Hibben UMC looks forward to many decades of music from this incredible instrument!"

Amy McCurley, Director of Music & Rodney Pendell, Organist
Hibben United Methodist Church, Mt. Pleasant, SC

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