



The new era of performance has begun.



# Welcome to the reality of magnetic bearing technology.

## Expand your thinking

Every day at Synchrony, our clean, frictionless magnetic bearing technology is successfully used in more and more rotating machinery applications.

In fact, Synchrony's magnetic bearings, high-speed motors and generators are designed for more types of real-world applications than could have been imagined just a few years ago—applications that include, compressors, blowers, pumps, fans, induction motors, turbines, gas turbine engines and turboexpanders on land, sea and air.

## Recent advances overcome old assumptions

Although magnetic bearings have been used for decades, they were often perceived as a niche solution that was too complex, too bulky and too costly for widespread application and industry.

## Synchrony is changing that perception here and now

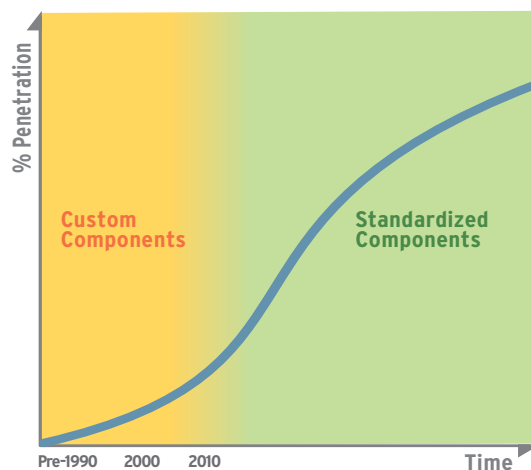
After years of industry-leading innovations, we have extended the applicability of magnetic bearings through engineering and manufacturing improvements in:

- Performance that ensures unconditional stability in any challenging operating condition.
- Size reduction of the bearings and the external controller.
- Simplicity that reduces the time, cost and expertise needed to integrate magnetic bearings into new applications.
- Cost effectiveness that maximizes your ROI by eliminating the oil-lubrication system, reducing downtime and maintenance, as well as boosting machine life and efficiency.

## Setting the standard for performance, size, simplicity and value

Synchrony's spirit of engineering excellence and bold innovation is helping customers realize new levels of performance in a wide range of industries, including oil and gas, renewable and recoverable energy, industrial gas, water/wastewater, HVAC and defense. Our technology can provide functional solutions for your new applications.

Take a close look at our people, products and processes. Then you will see how Synchrony can help you realize higher performance from your rotating machines.



**Magnetic bearing penetration: Standardization is helping drive widespread adoption of Synchrony® magnetic bearing technology.**



**Synchrony advancements  
are extending the applicability  
of magnetic bearing technology.**

# Meeting real-world challenges with world-class technology.

## It takes advanced technology to stay ahead of the competition

In the recent past, a rotating machine was used to perform specific tasks effectively and reliably. But today, rotating machines are operating in a world where energy efficiency, environmental impact and regulatory compliance are all highly valued.



**Quality is the driving force at Synchrony. It's an unending process, and the foundation for not only our products and our processes, but also our approach to doing business.**

## Raising system efficiency is the smartest way to keep ahead of rising energy costs

Due to rising costs, utility incentives and government regulation, improving machine efficiency pays off like never before. We work with OEMs to identify the best ways to boost the efficiency of your application. Synchrony's technology significantly reduces total power consumption by eliminating oil bearings. Often, additional energy savings can be achieved by using variable frequency drives to improve part-load efficiencies and to reduce peak power demand.

## Reducing your environmental impact can make a world of difference

Being green is an ideology; being efficient is a smart business practice. Synchrony technology allows you to satisfy both ecology and economy with greener, cleaner products. With magnetic bearings, all the maintenance and safety issues associated with hazardous and flammable lubricants are eliminated.

## Imagine new opportunities, create smarter solutions

To realize new opportunities, broaden your vision by looking to Synchrony for the technology and the innovations that can take your rotating machinery to a new level of performance.



Synchrony innovations and insights are changing perceptions and adding competitive advantages.

## See how our vision for innovation can inspire yours.

### Transferring real-world experience into real results

Are you ready to apply magnetic bearing technology in your products to gain a competitive advantage? If so, Synchrony is ready to provide the right solutions to improve your rotating machinery. Have confidence in our experience—the experience that resides in a company of professionals who have been handling real-world application challenges for nearly two decades.

Since we began in 1993, Synchrony has developed the engineering and manufacturing processes to address the issues critical to your success.

We meet stringent requirements by either customizing existing products or creating new ones with our industry-leading R&D engineering team. We respond to your production needs with our lean manufacturing processes and our automated production management system. We ensure quality with our ISO-compliant facility led by certified manufacturing professionals.

Then we provide assistance after installation with comprehensive engineering support. And we streamline the optimization process with algorithms developed by experts who understand the stability and performance requirements of real-world applications.



**As Founder, President and CEO of Synchrony, Dr. Victor Iannello has assembled a team with the highest level of expertise.**

### Professionals with a passion for excellence

Synchrony is an accomplished, multi-disciplinary team of mechatronics professionals. Our expertise in electronics, mechanical design, software, controls, electromagnetics, rotordynamics and thermal analysis has led to award-winning products.

But our passion is just as important as our engineering excellence. Under the leadership of Dr. Victor Iannello, the Synchrony team demonstrates a unique commitment to innovation that makes a significant difference in developing rotating machinery.

We value long-term relationships with our customers and seek to maintain your trust throughout the entire product lifecycle. From conceptual design to start-up to aftermarket support, Synchrony professionals are available whenever you need us.

We also offer training programs to assist your staff in gaining a better understanding of the technology so you can better serve your customers. That's why you can count on Synchrony for more than technology, but also for the talent and the dedication you need to succeed. Get started by contacting us today.



**Engineering excellence and a  
quality-driven environment provide  
a firm basis for long-term relationships.**





4655 Technology Drive  
Salem, Virginia 24153  
540-444-4200  
[www.synchrony.com](http://www.synchrony.com)