# **SCAN**SPEAK





IS SIMPLE:
THE EMITTED SOUND
MUST BE DYNAMIC,
GMNG A TRANSIENT
RESPONSE AND PROVIDING
TONAL BALANCE



# HIGH-END MADE IN DENMARK

Scan-Speak was founded in 1970 in Denmark – the birthplace of loudspeakers. We have from the beginning focused on developing, designing and manufacturing loudspeakers of the highest quality with our legendary "no compromise" policy.

At Scan-Speak we never compromise on our product quality, sound quality or pursuit of perfection in a given application. We set the loudspeaker industry's gold standard for audiophiles, and are constantly viewed as a market benchmark by other high-end speaker manufacturers.

Through the years we have been producing loudspeakers at our factory in Videbaek, which today is 7500 sqm. We export 95% of our products to end users and international speaker brands in +35 countries, where enthusiasts around the globe enjoy the fantastic sound and quality that is Scan-Speak.

At Scan-Speak we stand for an uncompromising attitude towards sound and quality and for development of several patents and proprietary technologies that have raised the bar for sound to a higher level.

The combinations of the large know-how of our highly qualified and dedicated employees as well as the best materials on the market are the foundation for our unique results and the high quality of our loudspeakers.



H.C. Ørsted (1777-1851)

#### THE BIRTHPLACE OF LOUDSPEAKERS

Scan-Speak today is a link in a long and proud loudspeaker tradition in Denmark. It all began with H. C. Ørsteds discovery of the influence between electrical current and magnets in 1820, laying the foundation of how to generate sound from an electrical source.

In 1915 the Danish engineer Peter Laurids Jensen invented the first loudspeaker – the Magnavox loudspeaker.

In the 1920's he developed the mostly used loudspeaker type – the electro-dynamic loudspeaker – which is the foundation for Scan-Speak's sophisticated loudspeaker types.

# TRUE TO LIFE SOUND EXPERIENCE

All our loudspeakers are hand-built with focus on quality and sound from beginning to end. They live up to the high standards from sound enthusiasts and the international market.

At Scan-Speak we are striving towards an ever greater adaptability and flexibility. All our loudspeakers can be tailor made to individual needs and preferences. No job is too big or too small, and we offer a high degree of service and support for all our products.

For more than 40 years we have been working on developing our products to give the listener the optimum sound experience with minimal distortion and dissemination of the finest details.

The Scan-Speak team is constantly on a quest to create loudspeakers that reveal all the sound in recordings, hiding nothing from the listener.

This is expressed in our philosophy, which is simply: We strive towards a "true to life" sound experience.

# SCAN-SPEAK HISTORY

	1970	Scan-Speak was funded in Hoerning near Aarhus
. =	1973	Symmetrical Drive SD is patented
Total action (Separate Control of the Control of th	1973	The D2008 tweeter is launched
	1975	The D2010 tweeter is launched
Concerns to the control of the contr	1978	Flow Resistor - an acoustic "valve" for cabinets - is launched
	1983	The classic 18w woofer is launched
	1990	Scan-Speak moves to new facilities in Videbaek
	1990	The D2905 Classic tweeter is launched
	1992	Second generation Symmetrical Drive - SD-1 - is patented
	1994	Non Resonant Coupling Cone - NRSC - is patented
	1995	First Revelator product - D2905/990000 - is launched
	1997	Symmetrical Drive for tweeters - SD-2 - is launched
	1997	Sliced Cone for Revelator Woofers is launched
	1999	Ring Radiator tweeter is patented
700	2000	Scan-Speak moves to larger facilities in Videbaek
	2005	AirCirc tweeter motor is launched
	2008	Illuminator woofer motor with SD-3 is patented
	2008	Illuminator line is launched
400-	2009	Discovery line is launched
	2010	Illuminator Beryllium tweeter is launched



Parameter measurement with laser.



3D drawings and simulations by mechanical engineer.

# PRODUCT LINES:





#### Illuminator

- Our top line
- Several new patented technologies in cone and motor system
- Outstanding performance and unique design with under-hung motor and Neodymium magnet





#### Revelator

- Recognized as Industry Reference since its launch
- Unique Sliced Woofer Cones
- Ring Dome Tweeters with patented Wave Guide Technology
- Patented Symmetrical Drive motor design



"Our goal is to offer "the best that money can buy". We want to be the world's leading manufacturer of high-end quality transducers."

Jan A. Nielsen, CEO









- Our "vintage" product line
- Several models on the market since the early '70s
- Patented Symmetrical Drive motor design





#### Discovery

- Our entry line with high cost optimization
  - Woofers with Patented NRSC Cone technology
- $oldsymbol{arksymbol{\end{\end{\end{\end{\end{\yy}}}}}}}}}}} } } }} } } } } }$  Ring Dome Tweeters with patented Wave Guide



#### **ILLUMINATOR**

The Illuminator tweeters stand for superb vocal rendition and excellent imaging at all listening levels. The D3004/664000 is "top of the range". With its pure beryllium diaphragm, large roll surround, and AirCirc motor system, it provides an excellent and unsurpassed sound reproduction with a flat frequency response to above 40kHz, outstanding off-axis response, low distortion and dynamic precision.



All drivers are critically listen-tested before approval.



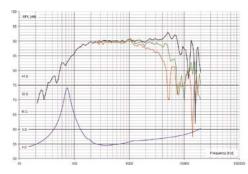
Scan-Speak engineering facilities include: 2 large anechoic chambers, each 6 x 7 x 8 meters.

# ADVANCED TECHNOLOGY AND KNOW-HOW

The quality and innovative design of our loudspeakers come from 40 years of experience and a group of highly dedicated employees who have an average of 15 years of experience and qualifications in their fields of expertise.

This experience and knowledge is behind all our loudspeakers and patented technologies and is used as a benchmark in the market for high-end loudspeakers. Our attitude is that only the best is good enough.

At Scan-Speak we prioritize the dialogue between our development department and the customer. The customers are in direct dialogue with the project engineer, and this assures that the customer gets a tailor-made solution on material choices and design.



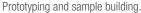
Impedance and frequency response of the Illuminator midrange 12MU/4731T00.



#### **REVELATOR**

The Revelator midrange and midwoofers, both well known for their sliced paper cone technology. The slices are filled with damping glue, which dramatically reduces breakup modes in the diaphragm. In combination with Scan-Speaks low-loss linear suspension and the patented Symmetrical Drive (SD-1), it represents a breakthrough in midrange clarity and overall smooth frequency response characteristics.







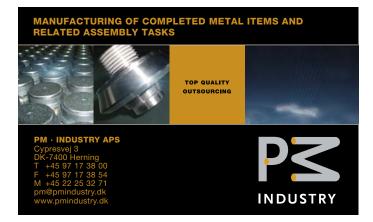
Golden reference units of all manufactured products.

Our highly qualified employees perform tests and measurements in our advanced, on-site test facilities. Facilities incluede 2 large anechoic chambers and a wide range of high-class measurement and test equipment.

The expertise and personal attention begins at the first contact, continuing with the engineers in the R&D department – where design, prototyping and the first test of the prototype is carried out – all the way through to the subjective test and control of the finished loudspeaker. This subjective testing ensures that our loudspeakers continue to create a unique sound experience which cannot be re-created by any other producers on the market.

# OUR PHILOSOPHY

# THE EMITTED SOUND MUST BE DYNAMIC, GIVING A TRANSIENT RESPONSE AND PROVIDING TONAL BALANCE









# UNIQUE TECHNIQUES AND PATENTS

The foundation of our high-end loudspeakers is our advanced proprietary technologies and patented designs that help create a unique sound experience.

Many of the techniques conducted in-house, can only be performed by our skilled employees, with the knowledge and experience. Coating is one of the highly valued specialties at Scan-Speak, where decades of experience with handmade coatings have taught us how to control and adjust sound performance when different types of glue is applied on the cone, dust cap or surround.

This helps to dampen or adjust the amplification to obtain the desired sound and makes it possible to change the visual appearance or protect against humidity.



Hand coating of dome tweeter textile diaphragms. Each diaphragm is individually coated for optimum performance.



Another one of our in-house techniques is the unique process of slicing and re-joining the membrane together which helps to dampen resonance and reduce breakup modes. Only with this special and unique treatment of materials is it possible for us to live up to our high quality demands for our loudspeakers.

Among our patented technologies is Symmetric Drive (SD), which consist of carefully engineered copper rings and/or copper caps to reduce distortion as well as providing a symmetric induction around the gap centre point. This helps control eddy currents in the motor system and flattens the impedance curve. The SD system exists in several versions and is used in most of our woofers and tweeters.

Our Ring Radiator tweeter is a patented technology consisting of a large-roll, non-dome shaped soft diaphragm, where the center point is fixed with a phase plug. The Ring Radiator design provides improved stability and increased high-frequency extension, and diaphragm breakups are dampened and reduced to a minimum.







Materion Corporation (NYSE:MTRN) supplies highly engineered advanced enabling materials to leading and dynamic technology companies across the globe. We are the world's only integrated "mine-to-finished product" supplier of beryllium-based products, offering beryllium, specialty engineered beryllium alloys and beryllium composites. Our bertrandite ore mine is located in Delta, Utah. The raw ore is concentrated at the Delta facility and then sent to be refined at our \$100 million dollar "Pebble Plant" in Elmore, Ohio. The Electrofusion facility in Fremont, California, is home to the Truextent® brand, and where fabrication of Truextent components and assemblies occur.

Truextent is the trusted solutions partner to the audio industry, offering a variety of products and turnkey services. For over 20 years we have been supplying high performance domes and cones in a variety of materials and geometries. We also offer a catalog of standard domes that are available with minimal lead time and no tooling charges. Another area of excellence is our family of OEM/ODM and aftermarket assemblies that support direct-radiating tweeters, compression drivers, microphones and headphones.





Truextent recognizes the value in utilizing the most advanced equipment and aligning with the best technology partners. Our product development lab and manufacturing line are equipped with a variety of components from the Klippel R&D system and QC system, as well as PowerTest and Anechoic Chambers from Phase Design, and the LifeTest system from True Technologies. We leverage the latest developments in Finite Element Analysis (FEA), relying on software products such as LOUDSOFT's FINECone™ and Dyne Analytics' MoTIV, and by consulting with specialist

companies such as iCapture. We are proud members of the Audio Engineering Society (AES) and the Association of Loudspeaker Manufacturing & Acoustics International (ALMA), and have published white papers through both organizations.

The Truextent brand is committed to developing and providing only the very best acoustic materials. Leveraging the vast material science resources of the publicly-traded Materion Corporation, we currently offer a diverse family of advanced materials that span the upper spectrum of performance while balancing cost:

- Truextent Beryllium is a high strength, pure beryllium rolled foil
- Truextent Metal Matrix Composites, including AlBeMet®
- Truextent Titanium is a unique combination of titanium and beryllium
- Truextent Magnesium foil



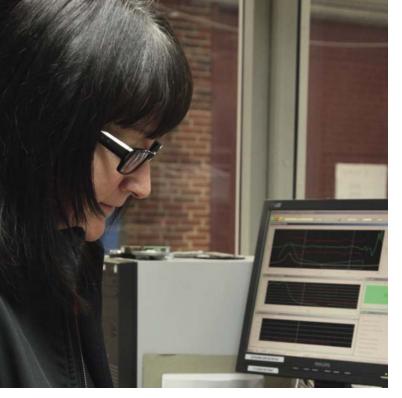


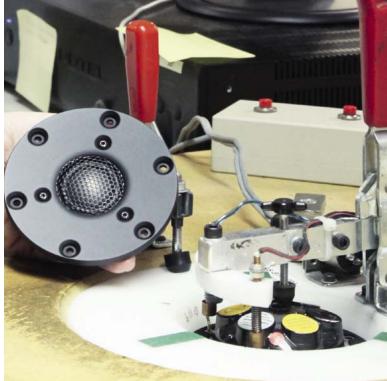
Materion's history begins in 1931 with the incorporation of the Brush Beryllium Company. Electrofusion was founded in 1966, primarily servicing the aerospace and scientific communities. Today, Truextent serves the audio industry by combining our historical strengths in premiere materials such as beryllium, aerospace-honed design excellence, precision manufacturing experience, and supply chain management expertise to yield the ultimate in acoustic solutions.



**www.truextent.com** • truextent@materion.com Materion Electrofusion, Fremont, California, USA • +1 510.661.9755

Truextent and AlBeMet are registered trademarks of Materion Brush Inc. FINECone is a trademark of LOUDSOFT.





We meet the highest environmental standards set by the most demanding brands in the world

# EFFICIENT QUALITY CONTROL

At Scan-Speak we perform individual quality control - on all our products. This also guarantees flexibility and can meet individual requirements and needs.

We have a very thorough incoming quality control and we perform a 100% outgoing quality control on all of our loudspeakers in order to make certain that they live up to our high standards. We retain all the measurement data, and these are traceable for each individual driver.

Our quality management system is based on the ISO 9000 standard and elements from TS16949. In addition, we work with parts of the PPAP in our product development.

The entire production is carefully monitored and controlled by our highly specialized employees. We use both Listen SoundCheck and Klippel QC test systems for our outgoing quality control.

### JS ON ENVIRONMENT

Scan-Speak are environmentally certified by one of the largest and most demanding international customers and live up to higher requirements than the ones found in Danish and European environmental- and work environment laws.

We use the best suppliers for our production, in order to ensure the high quality of every element of every product. Only the best is good enough.

# **SCAN**SPEAK



Phone: +45 6040 5200

E-mail: info@scan-speak.dk Web: www.scan-speak.dk



