Sandvik Hyperion is a leading global provider of innovative cemented carbide, diamond and cubic boron nitride solutions. The company’s products, services and applications development expertise enable customers to improve business performance with effective and wear-resistant tools, applications and components in hard and super-hard materials.

**Can Tooling an Important Market**
As part of its solutions offering, Sandvik Hyperion provides tailored can tooling for a wide range of can manufacturing. Its material development process, following a streamlined six-step approach, yields a unique composition of cemented carbide for can tooling, making it ideal for forming and stamping in can making. No product is delivered unless it meets Sandvik Hyperion’s exacting quality standards.

**Getting the Competitive Edge**
In order to anticipate the new and future demands of the canmaking industry, Sandvik Hyperion searched for a highly accurate and reliable measurement system that was fully automated and could provide metrological traceability. Sandvik Hyperion tested many competitive economical offerings, but in the end it turned to Z-Mike Lasermesstechnik GmbH, a value-added distributor of Beta LaserMike products, to help with their unique measurement requirement. Z-Mike Lasermesstechnik GmbH has more than 30 years’ experience in delivering precision non-contact measurement solutions for metrology to international manufacturers.
CASE STUDY

The Z-Mike Solution
Sandvik Hyperion chose the Beta LaserMike Z-Mike PrecisionScan 1104HP bench-top laser micrometer. It is the most precise laser gauging system in the world that has a measurement range up to 115 mm in diameter. This high-performance version produced in Germany has an MPE (Maximum Permissible Error) of ±0.0006 mm (±0.000024 in) – which is mainly achieved due to the outstanding Z-Mike optomechanical design and the use of high-performance gauge pins. The Z-Mike 1104HP gauge enables Sandvik Hyperion to obtain the highest possible accuracy with tolerances to ±2 µm when measuring punch and die ring products. Measurements are traceable to national standards via DAkkS Competence Center of Carl Zeiss, Germany.

A motor-driven slide with centers that open and close pneumatically provides hands-free measurement of the heavy carbide punch. A custom-developed software package by Z-Mike Lasermesstechnik controls the measurement system.

The operator places either the punch or die onto the fixture, then selects the proper program and library and presses start. The motorized slide automatically positions the part, takes the measurement and continues on to the next location. When measuring the punch or die, the slide moves the center of the product across the scanner to capture the measurement.

Success Story for Sandvik Hyperion
Sandvik Hyperion has been very pleased with the performance, high-quality results and competitive advantages provided by the Z-Mike 1104HP gauge that it now has now 3 systems at the Barcelona facility to measure its punch and die products.