**CASE STUDY** 

**OE750** 

# HITACHI Inspire the Next



### OE750 for casting quality control

Why the OE750 is the only spark spectrometer Toan Thang Casting trusts for casting quality control.

Toan Thang Casting Co Ltd (TTCC), Vietnam has over 20 years of experience in the casting and processing of iron, steel and non-ferrous industrial products. They ship to a global market, serving shipbuilding, mining, cement, chemicals, fertilizer and construction industries. This means they manufacturer a huge range of different casted components that all need different melt specifications. Examples of Toan Thang's diverse range of components include propeller shaft systems, steering systems, anchors and tang cables for the shipbuilding industry, gears, flywheels, crusher and furnace equipment parts for the cement industry, and tunnel bricks and product bucket excavators for the mining and construction industry.

Customer: Toan Thang Casting Co. Ltd.

- | Ensure correct chemical composition in manufactured casting products
- Upgrade to a more capable and modern

#### RESULTS

- Delivers superior performance, efficiency and ease of use
- Enables high quality product development
- New software supports quality control

"As a long-term Hitachi customer, we were confident in the latest release - the OE750. It satisfies our most important requirement absolute technical accuracy."



#### QUALITY ALWAYS COMES FIRST

Toan Thang has a built a reputation for quality and have always focused on sustainable development. They have been certified by a number of external quality assurance companies, including DNV Norway, GL Germany, RINA Italy, NK Japan and VR of Vietnam. They also hold ISO 9001-2008 certification, which means that they run ongoing continuous improvement projects and actively work to better their product quality on a daily basis.

In 2008, Toan Thang invested in a FOUNDRY-MASTER UV to support their production of quality products for their wide customer base. This instrument became an integral part of their operations and in 2020 – 12 years later – they decided that it was time for an upgrade to take advantage of more recent technological developments in the Hitachi range.

The most important criteria for spark spectrometers used in casting is the technical accuracy, as the instrument is used to verify the chemical composition of the material. It is essential that this meets the customer specification for the finished component to perform as expected. This is why Toan Thang chose the new OE750 spark spectrometer. In addition to being compact and easy to use, it delivers superior performance and excellent technical accuracy.

Son Nguyen, Director at Toan Thang Casting said: "We have been using Hitachi's OES analyzers for the past 12 years to verify the quality of a wide range of materials in our casting unit to meet customer requirements and industry standards. Satisfied with the German technology, quality and great local customer service, we had no reason to look anywhere else.

The OE750, the latest offering is very compact and very suitable for our production unit. It is easy and convenient to use; thus, our workers can use and operate it correctly – analyzing samples with minimum training. Our technical staff can comprehend the results and thereby control the quality of the metallurgical batch, avoiding mistakes, saving fuel, and thus money for company."

The new OE750 from Hitachi High-Tech delivers high-level performance within a mid-range instrument, making it the smart choice or organizations in the foundry industry.

## OE750 – THE INSTRUMENT OF CHOICE

The modern design, CMOS technology, latest SpArcfire software, wide wavelength detection capability and high optical resolution all contributed to Toan Thang's decision to purchase the new OE750 analyzer. Now, they can easily control tramp and trace elements in order to meet customer specifications.

Hitachi's optical emission spectrometers enable operators to check the quality of casted products throughout the production process to achieve standardized components. Analysis of boron, and nitrogen in steel is of utmost importance in the steelmaking, cast iron and mechanical machining industries. The OE750 is the ideal analyzer for casting as it can determine boron and nitrogen in steel to very low limits of 1 ppm for boron and 10 ppm for nitrogen.



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