ORANGE NEWS

Total.176
Vol.011 2025 AUTUMN

Interview on Manufacturing

Decoding Market Needs in Preparation for This Fall's Mechatronics Technology Japan (MECT) 2025

WORK&SOUL

MESCO Manufacturing, LLC

information

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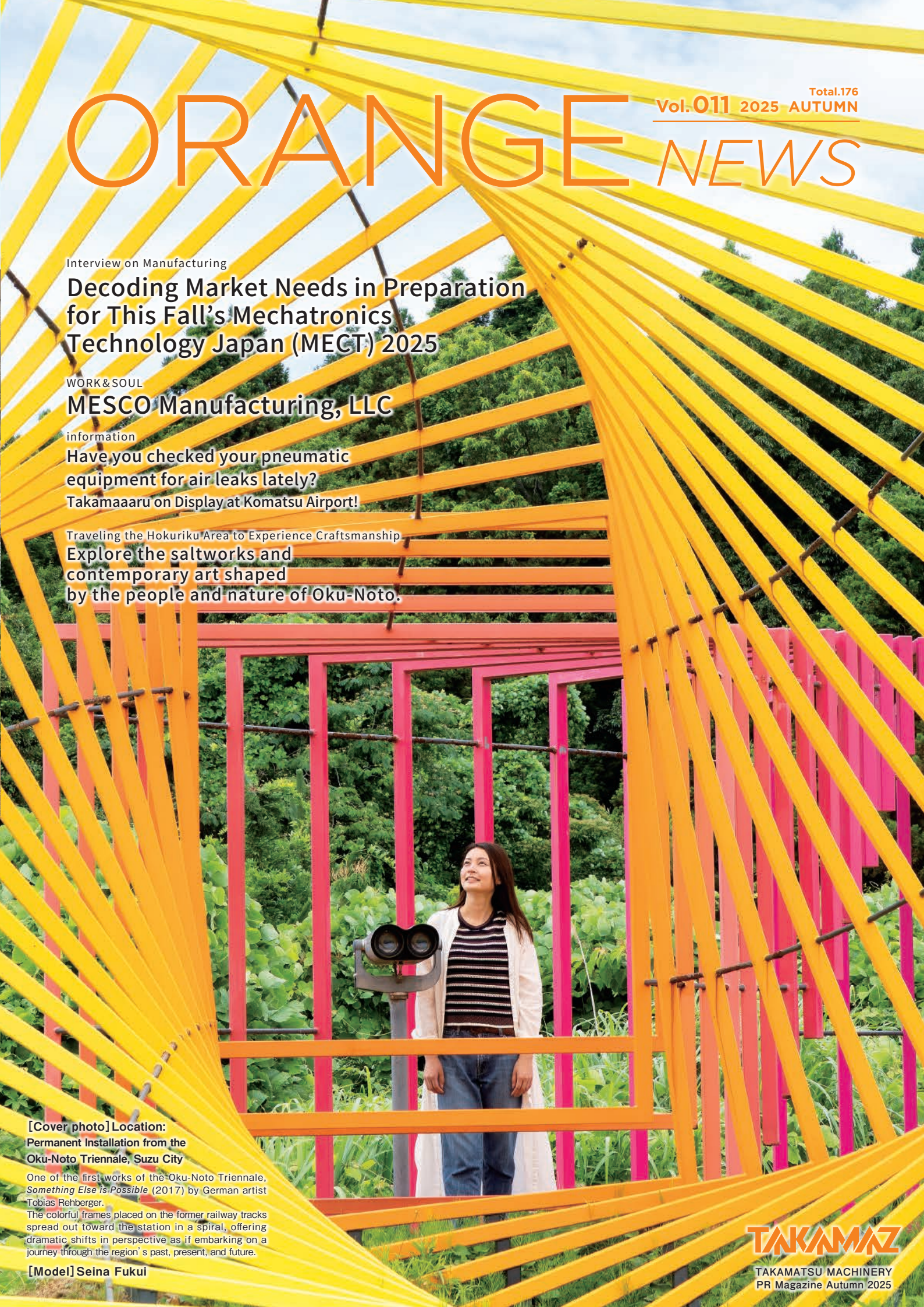
Traveling the Hokuriku Area to Experience Craftsmanship

Explore the saltworks and contemporary art shaped by the people and nature of Oku-Noto.



[Cover photo] Location: Permanent Installation from the Oku-Noto Triennale, Suzu City

One of the first works of the Oku-Noto Triennale, *Something Else is Possible* (2017) by German artist Tobias Rehberger.
The colorful frames placed on the former railway tracks spread out toward the station in a spiral, offering dramatic shifts in perspective as if embarking on a journey through the region's past, present, and future.

[Model] Seina Fukui

TAKAMAZ
TAKAMATSU MACHINERY
PR Magazine Autumn 2025

Decoding Market Needs in Preparation for This Fall's Mechatronics Technology Japan (MECT) 2025

One of the largest machine tool trade fairs in Japan, MECT 2025 will be held from Oct. 22 to 25 in Nagoya. How are we at TAKAMAZ interpreting today's market needs, and what solutions will we propose to our customers at this exhibition? To find out, we spoke with five members of our Nagoya Branch and three outstanding engineers from the Technical Development Department.

First of all, how do you see the current market environment from the perspective of the Nagoya Branch?

General Manager **Aoji**
As we watch how the so-called "Trump tariffs" will settle, a 15% rate has finally been confirmed, and the market seems to be starting to pick up. In the midst of this uncertainty, automotive manufacturers and suppliers in the Tokai region are remaining steady in their approach. On the other hand, looking to lead the market, Europe has been moving to establish rules around environmental regulations tied to automobile sales. As a result, the strong momentum toward electric vehicles has slowed. There is now a growing recognition that hybrids are the best option, and we are starting to see investments in this area. But these investments haven't reached our customers yet, so while business remains busy, the reality is that they have yet to make significant capital investment in equipment.

Chief **Yoneda**
Many factories are still using machines that are almost 30 years old—machines that in the past would have been replaced as part of routine upgrades. Every time we're asked to repair these machines, we provide a quote suggesting it might be better to replace them. But more often than not, that doesn't result in an actual upgrade.

General Manager **Aoji**
If the market clearly signals a strong push toward hybrids, investments in the required equipment are likely to follow, but for now, it seems that many are still observing before making decisions. With car prices at the factory level already high enough, the conditions are in place to benefit the industry as a whole. In this environment, whether for internal combustion or electric vehicles, the components that remain essential are drive parts like motor shafts, suspension parts, and other undercarriage parts. These are areas where investing in equipment is relatively straightforward.

How is the Technical Development Department responding to these changes in the market?

R&D Section : Chief **Hashiba**
We see that in response to current market trends, TAKAMAZ machines that were primarily selling in 6-inch sizes are now shifting toward 8-inch models. New models targeting shaft work are being introduced across the industry. We also plan to exhibit three machines focused on shaft machining at MECT 2025 this October. Among them, the XTL-8MYS will be showcased as a multi-tasking lathe capable of simultaneously performing high-precision machining on both ends of shafts and other materials.

Chief **Okamoto**
We at the Nagoya Branch appreciate the development of machines targeting shaft work. Whether for hybrids or EVs, there are certain parts where demand does not change, and equipment investments can be made more readily for such parts. We also believe that, if conditions allow for replacement of aging equipment, 6-inch machines will also start selling well.

General Manager **Aoji**
That said, focusing on shaft work is a trend our competitors are following too. At TAKAMAZ, we've developed the XTL-8 series, but without adding extra value, these machines won't gain much traction in the market. Double-end machining is one example of how we add that value. The same goes for the replacement of aging machines. Customers won't simply buy the same machines again—some added value is always required. That's why our concept for MECT 2025 is to propose added-value features instead of showcasing completely new machines.

Control Development Section : Chief
Matsuda
The XTL series comes with our interactive programming software, T-program Guide. This makes the machines easier to operate, reducing the need for specialized knowledge. As the demand for labor-saving solutions grows, this is exactly the kind of added value that is increasingly sought after. In fact, I'd say the XTL-8's series setup itself is what adds value, enabling customers to pick features like Y-axis or double-end machining.

And now, how do you view the market needs of small and medium-sized companies?

Chief **Nakata**
I work with a wide range of customers, from small town factories with just a few employees to large parts manufacturers with several thousand staff. Until a few years ago, many customers would place equipment orders immediately after receiving an order for 100,000 to 200,000 parts per month. These days, such large-scale orders are less common, and many customers take a more cautious approach—combining several smaller orders while keeping an eye on market conditions. In this environment, customers have shown interest in tools like T-program Guide, which streamlines program creation, and the Easy-Lock Unit for more efficient collet chuck setups. They seem to be looking for solutions that help reduce the burden on their employees.

Conceptual Design Section : Chief
Yamamoto
For markets where making new equipment investments is difficult, we also offer retrofit robot systems. Let's say a customer wants to increase production but can't add more machines. This is exactly where introducing a robot system makes a difference, allowing machines to operate even overnight. As a matter of fact, more than half of the robots we sell are retrofitted to existing machines.
While we don't manufacture the robots, what really matters is how they are used. Our strength lies in designing systems for effectively using robots, tailored to each customer's needs. When we know ahead of time that a customer would like to increase the volume or types of workpieces in the future, we design with that in mind. Because every customer machines unique workpieces, we listen closely to their requests, including expectations for maintenance, and provide support that's truly tailored to them.

Kato
During the roughly six months that I've been in sales, customers have often expressed their desire for automation. Trade shows are a great opportunity to have three-way discussions between the customer, our sales team, and our technical staff, so I really hope our customers will drop by.

General Manager **Aoji**
At our Nagoya Branch, we receive a wide range of requests from customers, and we communicate all these requests directly to our technical team. For MECT 2025, we even asked the technical staff to go above and beyond in responding to some of them. I see trade shows as an opportunity for TAKAMAZ to present our solutions for customers' needs, so I really hope everyone will visit our booth.

At MECT 2025, we will be exhibiting the XTL-8MYS, capable of double-end machining, the ServoROT-X1, a robot system that can be retrofitted, as well as our interactive programming software, T-program Guide. We hope you will take this opportunity to talk with us about any challenges you might be facing in your factory.

MECT 2025 10.22 WED – 25 SAT
メカトロテック ジャパン 2025
MECHATRONICS TECHNOLOGY JAPAN
10:00–17:00

Highlights of our booth!


● R&D Section : Chief Katsuhide Hashiba
Our original double-end machining, an essential feature for machining shaft materials!


● Conceptual Design Section : Chief Yuki Yamamoto
XTL-8MY × ServoROT-X1––Our first display of a robot connected to a machine!


● Control Development Section : Chief Tomohiko Matsuda
Capable of milling, XWG-3 is a must-see.
Come see the actual machine!


● Makoto Kato
Check out the Easy-lock Unit and experience how easily you can change collet chucks!


● Chief Masato Nakata
If you have any challenges or issues you're facing, please don't hesitate to reach out.
Our booth staff will be ready to help you find solutions!


● Chief Takuma Yoneda
Many customers have mentioned the need for replacing aging machines.
We encourage you to take a look at our general-purpose lathes too!


● Chief Hiroyuki Okamoto
Experience how easy it is to use our control system, TAKAMAZ OS, installed on the XWG-3.


● General Manager Tadaaki Aoji
TAKAMAZ is all about addressing the details that matter to you.
We look forward to talking with you at the venue about your everyday challenges.

MESCO Manufacturing, LLC

WHERE EXCELLENCE IS ENGINEERED

Meeting the Needs of Every Industry with the Highest Quality and Performance

In this issue, we are pleased to feature MESCO Manufacturing, LLC (MESCO), a valued customer of our Chicago-based subsidiary covering the U.S. market, TAKAMATSU MACHINERY U.S.A., INC. (TMU). A leading company specializing in CNC machining, contract manufacturing, and assembly, MESCO is located about a four-hour drive away from TMU's office. Stepping inside the factory, you' ll see prominent words on display depicting MESCO's core values, such as Commitment to Precision and Responsibility, Excellence in Customer Satisfaction, Continuous Technological Innovation, Continuous Improvement, and Global Competitiveness Enhancement. The company has also fostered a warm, family-like organizational culture.

Please tell us about the characteristics of the region where your company manufactures products.

We' re located in Greensburg, Indiana, in Midwest USA. This region has a long history in manufacturing and is home to a skilled workforce, backed by a well-established support system for manufacturing. With easy access to the Interstate Highway System and logistics hubs, the region enables highly efficient material sourcing and product delivery.

What kind of manufacturing fields are you involved in?

As a contract manufacturer focused on machining and assembly, we manufacture precision components for a wide range of industries including aerospace, defense, automotive, oil and gas, and industrial equipment. We specialize in machining challenging materials like magnesium, titanium, Inconel, stainless steel, and aluminum. We manufacture with a strong emphasis on precision, traceability, repeatability, and lean production.

Could you tell us about the journey that led to your current organizational structure?

Our company was founded in 1995 as a small CNC machining shop. Since then, we' ve gradually expanded our equipment and quality management systems to meet the demands of producing high-precision components for the aerospace and defense industries. Now exporting to six countries, we' ve earned trust as a global supplier. Of course, introducing TAKAMAZ' s 2-spindle lathes has greatly helped us improve our technical capability and shorten lead times.

In your view, what are your key strengths, and what sets your company apart from the competition?

Our strengths lie in our expertise in machining challenging materials like magnesium and titanium, and in achieving high-efficiency production through automation and CNC. These are the areas where we really stand out from the competition. We' ve built a proven track record in aerospace manufacturing by tackling challenging parts with our technical skill and producing high-precision components for aircraft. This is how we' ve set ourselves apart in the market. We are also AS9100 and ISO9001 certified, maintaining strict quality management in accordance with these standards. There is no doubt that the high repeatability and long-term stability achieved with TAKAMAZ machines underpin all of this.

What were some of the ideas and initiatives that led up to those strengths?

I believe these strengths are the results of our continuous investments in equipment for automation and multi-axis machining, aimed at enhancing production efficiency without compromising quality. In addition, introducing all-in-one automation machines like your XW-130 has helped us reduce work-in-progress and stabilize machining accuracy. Having access to skilled staff and carefully selecting our suppliers have also been instrumental in our success.

What management approaches do you use in your factory to ensure quality?

We' ve adopted a company-wide quality management system—including CMMs, visual inspections, and barcode tracking—which allows us to achieve part-level traceability in compliance with aerospace standards. We also actively pursue continuous improvement by applying lean production and the Six Sigma methodology.

Looking ahead, could you share your company's vision?

Guided by the following vision, we are committed to evolving beyond the automotive industry:

- Further expansion in the aerospace and defense sectors
- Expansion of fully automated (lights-out) cells
- Strengthen capabilities for challenging materials and next-generation materials
- Enhance prototyping and R&D capabilities
- Establish a competitive edge in the global market while maintaining high precision and reliability

We are now focused on turning these key areas of our vision into reality.

By the way, what prompted your company to adopt TAKAMAZ machines?

The reason we chose TAKAMAZ was the excellent cost performance of your automation packages. At the time, advancing automation was a key priority for our company. Introduced to us through our regional dealer YUASA-YI, we adopted a configuration like the XW-130—with 2 spindles, 2 turrets, and a gantry loader—at our factory. This setup allowed us to consolidate processes and reduce machining time, directly easing the shop floor workload and improving productivity. We currently have five lathes in operation, each featuring 2 spindles as the main spindle.

What do you appreciate about our machines and services?

We highly value TAKAMAZ lathes for their robust square-slide construction, which reduces vibration and ensures long-term stability; their high repeatability, meeting the stringent requirements for aircraft components; and their reliable automated operation when integrated with the gantry loader. We also place great trust in the prompt support provided by the teams at TMU and YUASA-YI.

【MESCO Manufacturing, LLC】

MESCO MANUFACTURING

900 Randoll, Greensburg, IN 47240
TEL.+1 (812) 663-3870
Stated capital: Not disclosed
Employees: About 50
Establishment: 1995
Nature of business: CNC machining, assembly, parts manufacturing for difficult-to-machine materials, contract manufacturing for aerospace and defense industries

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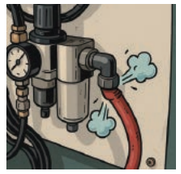
(左)YUASA-YI, INC. Sales Manager SAM THOMASON
(右)TAKAMATSU MACHINERY U.S.A., INC. President Kazuya Yoshimura

TOPIC1

Have you checked your pneumatic equipment for air leaks lately?

1 Air leaks can prevent your pneumatic equipment from performing at its full potential.

For example, they may cause slower operation or reduced gripping force, potentially leading to equipment malfunctions and affecting production.



2 How to check for air leaks

A common way for checking air leaks is to use soapy water.

Ex. When air is leaking from a cylinder, bubbles will appear if the leak is located at sliding parts such as a rod or at piping connections.

⇒If you find an air leak, please contact TAKAMAZ for assistance.

3 An example of air leak locations and leak rates detected using an ultrasonic leak detector at our Plant No. 2.

The three air leak locations indicated in Table 1.

【Table 1】

Leak level (Sever/Moderate/Minor)	3 Moderate
Leak rate	1.5m³/h
Run time	12 h/day
Run days	244 days/year
Unit cost of air	2.24yen/m³

Air gun (nozzle tip)

Air gun (piping)

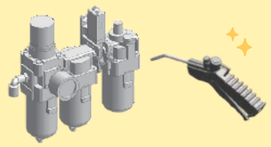
Air filter bottom

Annual run time (h)	Annual leak rate (m³/year)	Annual loss (yen/year)
2,928	4,392	9,838

102,000 yen saved annually by fixing 26 air leaks

CO_2 reduced by 3.7 t!

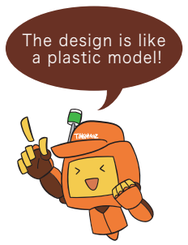
Air leak locations	Measurement	26 locations
Estimated air leak rate		45,677m³/year
Estimated loss		102,000 yen/year
Estimated CO_2 reduction		3.7tCO_2/year



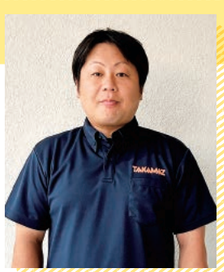
TOPIC2

Takamaaaru on Display at Komatsu Airport!

TAKAMAZ's window display at Komatsu Airport has been relocated from the 2nd-floor domestic departure area to the front of the 1st-floor domestic check-in area. With a theme of passion and playfulness in manufacturing, our official mascot Takamaaaru has been designed like a giant plastic model kit for this display. Ready to join you on a journey through the skies, Takamaaaru is cheering on manufacturing in Japan and across the world from Komatsu Airport. Next time you stop by the airport, don't miss the chance to spot Takamaaaru on display!



Strolling Through TAKAMAZ



Domestic Sales Dept. Tohoku Office: Chief **Akira Ogasawara**

Originally from Miyagi in the Tohoku region, he joined the company mid-career through local recruitment and is now in his seventh year. Covering the wide Tohoku area, he is responsible for providing after-sales service for machines operating at customer sites.

- He organizes his abundant work tools into first string and second string teams based on ease of use. His two all-time favorites and trusty helpers? An electric screwdriver and nippers!
- He holds a Class-3 Automotive Mechanic license and enjoys spending fulfilling weekends maintaining his car or fishing and playing golf with customers.
- Since April, he has begun taking on sales responsibilities in addition to his service duties, working hard to meet the needs of a new range of customers.

Pick up

Traveling the Hokuriku Area to Experience Craftsmanship

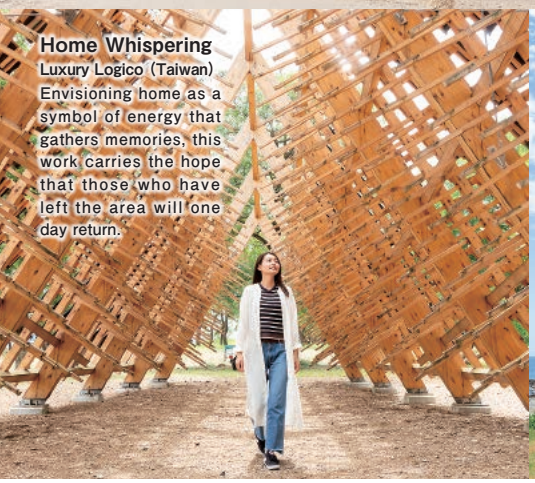
— CRAFT CONSCIOUS —

Explore the saltworks and contemporary art shaped by the people and nature of Oku-Noto.

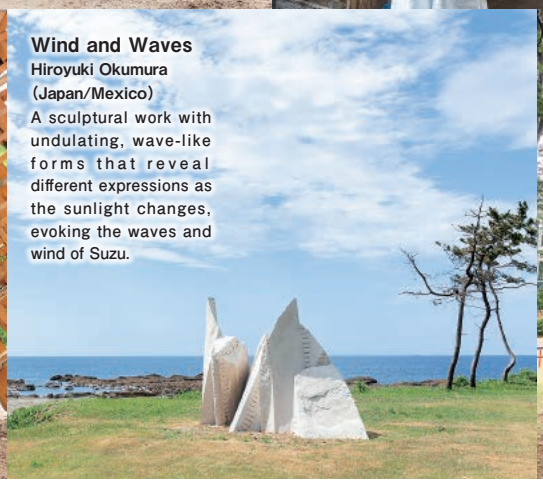
Sometimes described as the land's end, Suzu City is located at the tip of the Noto Peninsula. Its gentle and beautiful landscapes continue to captivate our hearts. This region has a long-standing tradition of salt making, and the salt farms scattered along the coast are a distinctive feature of Oku-Noto. In recent years, with each Oku-Noto Triennale art festival, artworks inspired by the remote nature and local culture have added vibrant touches, transforming the area into an even more captivating destination.

Suzu Seien Salt Making
A salt manufacturer in Oku-Noto that makes salt by hand using two traditional Japanese methods: the ancient Agehama method and the 20th-century Ryuka method. They have distinct product lineups for each method.

Suzu Seien's Giant Cauldron
Flavorful salt is produced by boiling down concentrated seawater in this giant cauldron.



Home Whispering
Luxury Logico (Taiwan)
Envisioning home as a symbol of energy that gathers memories, this work carries the hope that those who have left the area will one day return.



Wind and Waves
Hiroyuki Okumura (Japan/Mexico)
A sculptural work with undulating, wave-like forms that reveal different expressions as the sunlight changes, evoking the waves and wind of Suzu.

Answer me
N.S. Harsha (India)
This sculptural work questions the diminishing sense of hometown and local identity in modern times, depicting a lost giraffe parent and child.

In June 2011, Noto's Satoyama and Satoumi were designated as a Globally Important Agricultural Heritage System, recognizing the region's harmonious landscape of managed forests, farmlands, and coastal waters that sustain both nature and local communities. Among these traditional practices, the Agehama method of salt production—unique to the Noto Peninsula and designated as a national Intangible Cultural Property—is an indispensable technique for maintaining Noto's Satoyama and Satoumi. In Oku-Noto, salt making is said to take three years of training just to learn how to collect seawater, and ten years to master the technique of spreading it on the sand. At Suzu Seien, operations resumed just about a week after the 2024 Noto Peninsula Earthquake, helping to sustain salt production in the region. Hand-crafted from start to finish, their natural salt is made by carefully spreading a thin layer of sand and then scattering seawater over it, slowly boiling the brine in large cauldrons, and bagging each batch by hand. The result is a rich flavor that captures the essence of the sea.

For those looking for the full experience, a road trip through Oku-Noto is highly recommended. Along the way, you'll encounter the region's scattered salt farms and the dedicated local salt makers at work—a truly unique sight. Add in encounters with art, and the experience becomes even more memorable. The Oku-Noto Triennale continues to introduce new works to the region, offering visitors new experiences with every edition. The official travel site of Suzu, Go to Suzu, offers information on the Oku-Noto Triennale's permanent works you can visit now.

Even after the earthquake, Oku-Noto remains as beautiful as ever. This autumn, explore its natural scenery while enjoying a variety of captivating art installations.

TAKAMAZ

Scan this QR Code for more details.
https://www.takamaz.co.jp

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