

September 15, 2026
AMADA MACHINERY CO., LTD.

Launch of the "VCSAW-160"

Ultra High-Speed Vertical Band Saw Machine

Innovative cutting speeds achieved through the integrated development of the machine
and a dedicated blade



AMADA MACHINERY CO., LTD. (Isehara City, Kanagawa Prefecture; President: Masahiko Tadokoro) will launch sales of the VCSAW-160 ultra high-speed vertical band saw machine on September 15, 2026.

The VCSAW-160 is equipped with a new saw head mechanism that minimizes the twist angle of the blade. Additionally, by taking advantage of the company's ability to develop both the machine and blade in-house, a new band saw blade was developed exclusively for this machine to simultaneously achieve both high cutting speeds and excellent cut quality.

When cutting typical carbon steel for machine construction (S45C ϕ 150 mm), this band saw machine achieves a high cutting speed that is 11.6 times faster than a general-purpose band saw machine using a conventional High-Speed Steel Bi-Metal Band Saw Blade. It also cuts 2.2 times faster than a carbide-tipped circular saw machine. Additionally, this machine can cut circular workpieces up to 160 mm in diameter and square workpieces up to 160 mm wide and 160 mm high. The adoption of the vertical structure reduces the installation footprint for a more efficient use of space.

In recent years, as workplaces processing metal have experienced labor shortages and a shortage of skilled workers, there has been a growing need to improve productivity, such

as by reducing machining times in cutting processes and making more effective use of plant space. To address these issues, AMADA MACHINERY is providing solutions that maximize the performance of machines and blades to reduce the labor and space requirements. AMADA MACHINERY will continue to support manufacturing operations through product development that meets the evolving needs of customers.

■ Main features

1. A new saw head mechanism that enables high-speed cutting

The VCSAW-160 uses a new structure that minimizes the twist angle of the blade, which greatly reduces the load on the blade body. This extends the life of the blade body and also dramatically increases the blade running speed, enabling high-speed running of up to 300 m/min. Furthermore, the VCSAW-160 is equipped with a 22 kW (30 HP) high-capacity blade motor, which is about twice the capacity of conventional band saws and carbide circular saw machines. Additionally, the machine design features increased blade tension, which suppresses bending during cutting, and the use of an AMADA original insert-type blade guide suppresses wear and reduces the load on the drive motor.

2. A dedicated blade that enables high-speed cutting and high yields

The AXCELA VC-MS blade was developed exclusively for this machine and realizes both high-speed cutting and a longer service life. This was achieved by optimizing the blade material, tooth profile, tooth tip coating, and special processing of the tooth base. The machine also adopts a thin blade design with a blade thickness of 2.1 mm, which reduces the cutting margin by approximately 22% compared to conventional circular saw blades. This realizes high yields and reduces material waste.

3. A space-saving design and process consolidation enabled by high-speed cutting

The adoption of a vertical structure reduces the installation footprint, enabling the more efficient use of space. Additionally, the outstandingly high-speed cutting performance means that cutting work that was previously performed using multiple machines can now be performed on just one VCSAW-160 machine. This consolidation of machinery creates extra space and increases productivity.

4. Work environment improvement and increased utilization rates through automation and IoT

Instead of conventional cutting oil, the VCSAW-160 uses MQL (mist oil) cutting. Combining this with the installation of the optional mist collector realizes a clean working environment. There is also a lineup of various material loading and product unloading equipment to meet the needs of customers. This equipment enables process automation

and systemization, reducing the burden on workers and increasing equipment utilization. Additionally, connection to AMADA's IoT "V-factory" enables visualization of the machine operation status and supports preventive maintenance.

■ Specifications

Model name			VCSAW-160
Cutting capacity	Round (Dia)	mm	ø30 - ø160
	Rectangle (W × H)	mm	30 × 30 – 160 × 160
Blade	Size (W × T × L)	mm	54 × 1.3 × 4650
	Blade speed	m/min	50 – 300 (Inverter-controlled continuously variable speed)
Motor output	Blade	kW	22
Vise	Rear vise		Feed stroke (720 mm Stroke)
	Main vise		Fixed-type (Split vise)
Cutting	Tool cooling system		Semi-dry Cutting
Mass of machine		kg	4300 (Main body only)

- **Start of sales** September 15, 2026
- **Annual sales target** 30 units/year
- **Sales price (excluding tax)** 36.5 million yen (base price) * Sales price in Japan

End

* The information in this release is subject to change without notice.