

May 11, 2018  
AMADA HOLDINGS CO., LTD.

## Launch of Cutting Machine Business for Advanced Materials in the Electronic Parts and Semiconductor Markets

New **DBSAW-500** diamond band saw Introduces for high-quality cutting



AMADA SANWA DAIYA CO., LTD. (President: Yusaku MATSUDA), which is affiliated with AMADA Group, will launch the **DBSAW-500** diamond band saw for the high-quality cutting of advanced materials (hard-brittle materials) in the electronic parts and semiconductor markets on June 15.

Hard-brittle materials such as quartz glass, ceramics, carbon, carbon fiber reinforced plastics (CFRP), silicon carbide (SiC), silicon, sapphire, require high-quality cutting with high added value to meet market needs in the fields of electronic parts, semiconductors, optics, automobiles, and aerospace industry. AMADA SANWA DAIYA develops and manufactures band saw machines, diamond blades, and cutting oil, the three elements required for cutting these materials, and possesses unique manufacturing and processing technologies accumulated in its operations. Its strength, therefore, lies in the high-quality cutting of hard-brittle materials.

As part of a growth strategy to implement its mid-term management plan, AMADA HOLDINGS CO., LTD. is expanding its business by entering the non-metal processing market. As a result, AMADA SANWA DAIYA became affiliated with AMADA Group in October 2017 as an affiliate of AMADA MACHINE TOOLS CO., LTD., which is engaged in the metal cutting machinery business. We will expand our cutting machinery business by coordinating AMADA MACHINE TOOLS' cutting technologies for metals with AMADA

SANWA DAIYA's cutting technologies for hard-brittle materials.

AMADA SANWA DAIYA intends to develop its development and production systems in the band saw and blade business, as well as in the related tool business, in order to reduce costs and control quality. Moreover, it is working to grow its contracted and test cutting business based on accumulated processing knowledge. In the service business, it will expand its business related to cutting hard-brittle materials in close cooperation with AMADA MACHINE TOOLS' sales and service networks in Japan and abroad.

### **Main features of DBSAW-500**

#### 1. Improved processing efficiency due to high-quality cutting

Because this specialized band saw uses a diamond blade, it is highly rigid and enables high-quality cutting of hard-brittle materials. Therefore, it helps improve processing efficiency by eliminating finish and other following processes. As an example, it enables ultra-thin high-quality cutting of quartz glass (a round plate with a  $\varnothing 300$  mm, a thickness of 1 mm, a thickness accuracy of  $\pm 20$   $\mu\text{m}$ , a parallel flatness of 30  $\mu\text{m}$ , and a surface roughness  $R_z = 23$   $\mu\text{m}$ ), which is difficult to cut with a general band saw machine.

#### 2. Original Diamond blade

The band saw uses a blade manufactured by AMADA SANWA DAIYA, featuring original metal chips that contain diamond abrasives. The blade ensures a high yield, and is ideal for cutting costly materials. A suitable blade can be selected according to workpiece material, cutting shape, and cutting conditions.

#### 3. Space saving and improved safety

A compact design is achieved because the workpiece, together with the fixed pedestal, has been moved to the upper blade tip for cutting. In addition, safety has been improved by preventing the scattering of chips and cutting oil with a full cover, and fixing the door with an electromagnetic lock during operating.

Launching of the **DBSAW-500** diamond band saw has enabled AMADA SANWA DAIYA to make comprehensive proposals comprising diamond blade, cutting oil, and knowledge of processing technology.

### Machine specifications

Model name			<b>DBSAW-500</b>
Cutting capacity	Round material (øD x L)	mm	ø500 x 500
	Rectangle material (W x L x H)	mm	500 x 500 x 500
Blade	Size (W x L x T)	mm	125 x 5410 x 0.8
	Speed	m/min	200 - 1500
Table lower limit position		mm	977
Table elevating stroke		mm	530
Dimension of machine (W x L x H)		mm	2899 x 2205 x 2175
Power requirement		kVA	11.7
Allowable load on machine		kg	300
Mass of machine		kg	5000

Note: The information herein is subject to change without notice.

### **AMADA SANWA DAIYA CO., LTD. Summary**

Address: 97-4 Imago-cho Yamato Koriyama, Nara, Japan  
Establishment: October 2017  
President: Yusaku MATSUDA  
Description of business: Manufacture, sales and services of band saws, diamond blades, and tools; and contracted and test cutting business  
Capital: 50 million JPY  
Employees: 57  
URL: [www.sanwadaiya.co.jp](http://www.sanwadaiya.co.jp)