

8 June, 2020

Sumitomo Electric Industries, Ltd.

\*This press release was originally published in Japanese on March 26, 2020.

## High-efficiency PCD Cutter for Aluminum Alloys "ALNEX™ ANX Type" Series Expansion, Development and Launch of Modular Type Heads

Sumitomo Electric Industries, Ltd. (head office: Chuo-ku, Osaka, President: Osamu Inoue, hereafter "our company") has developed and launched a Modular Type series expansion of the high-efficiency PCD cutter for Aluminum Alloys "ALNEX™ ANX Type" from April 2020.

In recent years, the automobile industry has endeavored to reduce the weight of their engine components in a bid to improve fuel efficiency, and this has sparked the increasing use non-ferrous materials such as Aluminum Alloys. Similarly, there is an increased demand for lightweight tools that can perform under high-speed, high-efficiency conditions and be used on smaller machines, in order to improve machining efficiency.

In response to these needs, our company launched the High-efficiency PCD Cutter for Aluminum Alloys "ALNEX™ ANX Type" in April 2019.

The series now includes Shell Type cutters with varying number of teeth (18 items); Shank Type cutters in  $\Phi 25$ , 30, and 50mm (6 items) along with  $\Phi 32$  and 40mm cutters (2 items) with varying number of teeth; as well as the newly launched Modular Type cutters (7 items). In addition, we have also expanded the corner radius of the blade to 0.8mm (1 item), to support the various machining requirements of the automobile, aircraft and industrial machinery industries etc.



ALNEX™ ANX Type

## 1. Features

### (1) High-speed/high-efficiency machining

The use of a unique blade mounting method enables multiple-tooth design of 4.5 teeth per inch, achieving high machining efficiency with a feed rate of 30,000mm/min or more.

In addition, blade displacement due to centrifugal force at high rotation speeds is minimized to achieve high dimensional accuracy.

### (2) Light-weight

The use of an Aluminum Alloy body keeps the cutter weight at 1.0kg or less, even for  $\Phi$ 100mm cutters. This lightweight cutter has been developed for use on smaller machines.

### (3) Improved chip control

The use of a newly developed carbide molding technology, coolant\* is supplied through the SUMIDIA™ blade and directed at the cutting edge with constantly high pressure to finely break chips.

## 2. Lineup

- Body: Additional 33 items (series total 70 items)

### ANXS Type

New:

Cutter diameter  $\Phi$ 25 to  $\Phi$ 40mm (Modular Type) 7 items (series total 7 items)

Expansion:

Cutter diameter  $\Phi$ 25 to  $\Phi$ 50mm (Shank Type) 8 items (series total 10 items)

Expansion:

Cutter diameter  $\Phi$ 40 to  $\Phi$ 125mm (Shell Type) 10 items (series total 29 items)

### ANXA Type

Expansion:

Cutter diameter  $\Phi$ 80 to  $\Phi$ 160mm (Shell Type) 8 items (series total 24 items)

- Blade expansion: Nose radius 0.8mmn – 1 item, 1 grade (series total 7 items)

# News Release



## 3. Sales Plan

100 million JPY/year in the first year, 300 million JPY/year after 2 years

\*Coolant:

Rust-proof liquid applied to work materials and tools for cooling purposes. Cutting / grinding fluid.

### ■ Reference

Sumitomo Electric's Website

<https://sumitomoelectric.com/>