



Industry Notification - Machine Tool Industry

Delta Sawing Center Solution

IABG Global Solution Center
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Sawing Center Solution

Introduction

Sawing machining center is a kind of automatic cutting equipment for aluminum profiles. Delta's Motion Control Shaft Card and AC Servo System can achieve the function of fast and precise aluminum profile cutting. The target development of UI operating system can complete the communication decoding of the upper door and window production management system, and automatically assign processing tasks according to orders. After labeling the processed profile, the product information is sent to the equipment in the next process to improve the processing efficiency.

Application

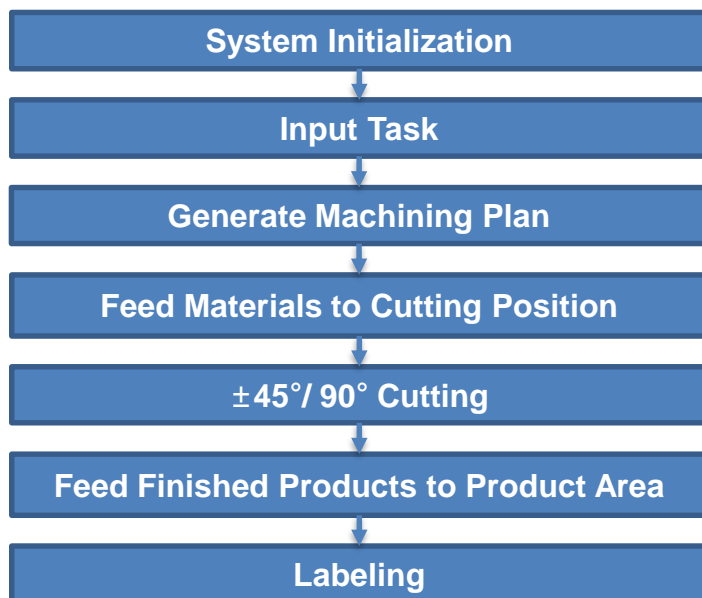
Sawing machining center is one of the key equipment in the process of door and window industry, mainly used in the cutting of aluminum alloy door frame and window frame.

Principle

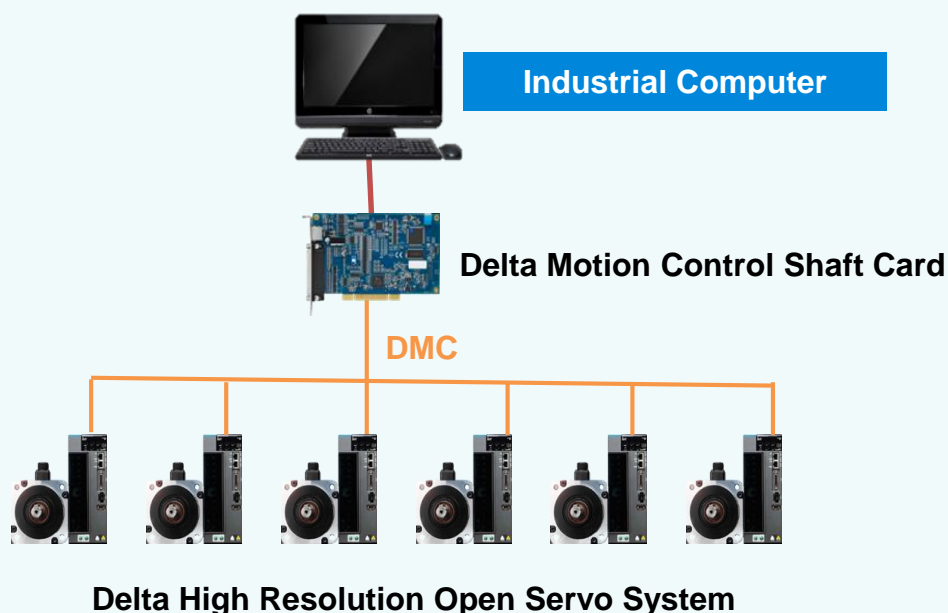
Delta's Sawing Center Solution consists of 3 parts:

- **Feeding period**
The feed head is clamped and fed to the cutting position by 3 servos
- **Cutting period**
It is divided into $\pm 45^\circ$ cutting shaft and 90° cutting shaft to complete the cutting of profiles
- **Blanking period**
Take out the cut profile and put it into the feeding conveyor belt, label and scan the profile

Process Flow



Solution Architecture



Features and Advantages

Comprehensive Industrial Solution

- Delta's Sawing Center Solution uses communication bus to control servo drives. It features fast response, flexible control mode, and simple parameter configuration.
- Small deviation of aluminum profile size, flat section, and high cutting efficiency.

Efficient and Stable Production

- The processing speed can reach 12m / min with neat arrangement under normal processing conditions

Powerful Host UI

- The system can connect to the upper MES with the function of opening orders to automatically generate processing schemes according to actual orders.
- Labels and sends product data to the next station for process pre-setting to reduce the waiting time.

Flexible Cutting

- The system contains different saw blades, which can achieve $\pm 45^\circ$ and 90° cutting angles.

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