

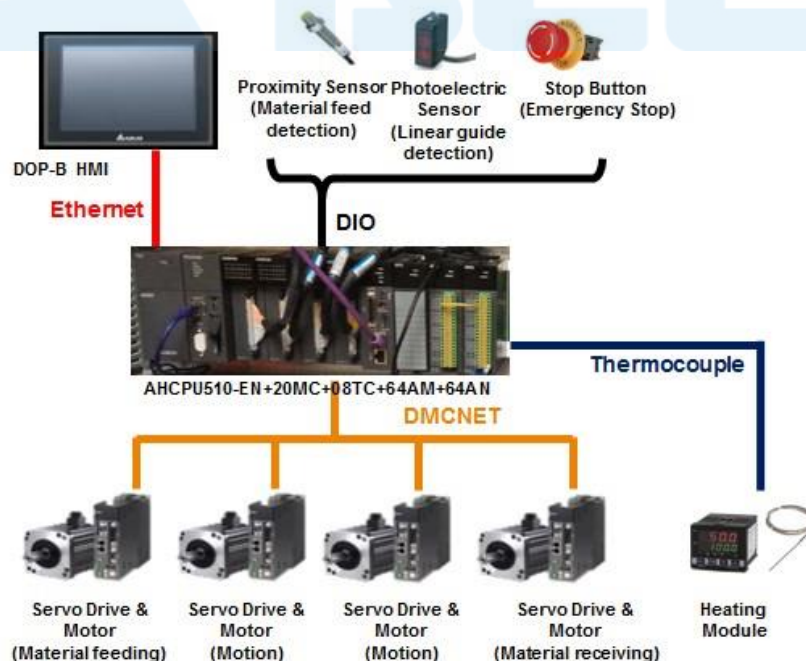
Case	Delta Industrial Automation Products for Linear Guide Heat Treatment				
Issued by	Solution Center	Date	May, 2016	Pages	2
Applicable to	Human Machine Interface, Programmable Logic Controller AH500 Series, AC Servo Drives ASDA-A2 Series, AC Servo Motors ECMA Series				
Key words	Heat Treatment for Linear Guide, AH500, ASDA-A2, HMI				

## [Application Introduction]

Heat treatment equipment is used to change and improve the characteristics of metal materials in linear guide manufacturing. Delta provides an integrated motion control solution for the heat treatment process. The motion control modules AH20MC of the programmable logic controller (PLC) AH500 Series manages the material upload and unload movements and positioning. A customer enters different materials profiles via Delta's human machine interface (HMI) DOP-B Series. The movement of different axes is perfectly integrated with the AH500 Series PLC and servo motor drives via Delta's high speed communication system DMCNET. Delta's solution achieves precise multi-axis motion control and simplifies the system's wiring and configuration.

## [Delta's Products in the Linear Guide Heat Treatment System Structure]

Through the DMCNET communication bus, the AH500 Series PLC controls four sets of the ASDA-A2 Series AC servo system using the AH20MC extension module. Among the four sets of the AC servo system, two ASDA-A2 servo systems are used for material movement in the heat treatment process and the other two servo systems upload and unload the material.



With solid experience and advanced technology, Delta Industrial Automation offers efficient and reliable solutions and service – we are your most trustworthy partner.

## [Application Solutions]

- The solution provides three phases of motion control in the heat treatment process: one axis of the servo drive moves the linear guide to the heat treatment station; then two axes of the servo motors move the linear guide and process heat treatment; finally, the servo drive for material unload moves the linear guide to the material receiving area.
- The AH20MC motion control module communicates with the four sets of AC servo drives to provide high-speed and high-precision motion control.

## [What Delta Provides for Linear Guide Heat Treatment Applications]

- High performance: the ASDA-A2 servo system provides high-speed, stable motion control and precise positioning. The AH20MC bus motion control modules easily achieve five axis bus control with high system expandability.
- Easy system configuration: Users can easily plan the movements using built-in function blocks in the motion control module. It's more convenient for direct programming, fast parameter setting and operation.
- Simple wiring: AH20MC adopts DMCNET high speed communication via Ethernet cable, reducing wiring and maintenance time compared with the complicated wiring and difficult maintenance of pulse-type PLCs.

For more information on Delta's industrial automation products, please visit our website at: [www.delta.com.tw/ia](http://www.delta.com.tw/ia)

