

# ADM SERIES

5-axis Composite Material Machining Center



# Aerospace Parts CFRP / GFRP Dedicated Machine

ADM is a 5-axis machining center to process composite materials with high speed, precision and automation.

ADM is aimed at processing materials such as Carbon Fiber Reinforced Polymer (CFRP), Fiberglass, Plastic and Aluminum.

- High Speed Spindle.
- Dual ATC Magazines.
- 5-Axis Simultaneous Machining.
- Ultra-Low Temperature Spiral Tube Cooler.
- Single Working Table / Dual Working Table.
- Dust Suction Device.

5-Axis  
Machining



## 規格表 Specification

規格	Specification	單位	ADM-2638
X軸行程	X travel	mm	2,600
Y軸行程	Y travel	mm	3,800
Z軸行程	Z travel	mm	1,000
主軸鼻端至工作台面距離	Distance from spindle nose to work table	mm	150 - 1,150
雙立柱間距離(門寬)	Distance between columns (port width)	mm	4,900
工作台面積(長x寬x數量)	Table dimension (L x W x Number)	mm	2,500 x 1,500 x 2 pcs
工作台可移動距離	Table moving distance	mm	3,800
T型槽(尺寸x數量x間距)	Table t-slot (dimension x number x pitch)	mm	18 x 8 x 150
工作台最大載重	Max. table load	kg/m <sup>2</sup>	3,000
主軸轉速	Spindle speed	rpm	24,000
主軸馬力(連續/30分鐘額定)	Spindle power (continuous/30 minute rated)	kW	15 / 18
主軸錐度	Spindle taper	-	HSK-A63
快速進給速率	Rapid traverse	mm/min	X,Y:40,000 Z:20,000
切削進給速率	Cutting feed rate	mm/min	20,000
X,Y,Z伺服馬達(功率/數量)	X,Y,Z axis servo motor (power/Q'ty)	kW	X:9.6/2(pcs) Y:3.5/2(pcs) Z:9.6/1(pcs)
刀庫規格	Magazine type	-	斗笠式 / Carousel tool
刀把規格	Tool taper	-	HSK-A63
刀庫容量	ATC capacity	pcs	16
刀具最大外徑(滿刀/鄰空刀)	Max. tool size (full tools/ next pockets empty)	mm	∅80 / ∅150
刀具最大長度	Max. tool length	mm	300
最大刀具重量	Max. tool weight	kg	6
定位精度(VDI3441)	Positioning accuracy (VDI3441)	mm	X: P0.018 Y: P0.020 Z: P0.012
重現性精度(VDI3441)	Repeatability accuracy (VDI3441)	mm	X: Ps0.012 Y: Ps0.018 Z: Ps0.01
地板集塵進氣流量	Flow rate of ground suction device	m <sup>3</sup> /min	400
機頭吸塵進氣流量	Flow rate of spindle suction device	m <sup>3</sup> /min	15
電力需求	Electric power consumption	kVA	130
氣壓需求	Pneumatic input pressure	kg/cm <sup>2</sup>	6
機械重量	Machine net weight	kg	30,000
占地面積(長x寬x高)	Floor space (L x W x H)	m	11 x 9.3 x 5.5

\* X軸客製化  
X travel customization

\* 詳細資訊請參閱機台規格書  
For details, please refer to Machine Specification.

\* 本公司隨時進行研究改進的工作，因此保有更改設計、規格功能之權利。  
The manufacture reserves the right to modify the design, specifications mechanisms, etc.

## 標準配件與功能

HEIDENHAIN TNC640控制器  
24,000rpm HSK-A63主軸  
雙工作台交換裝置  
自動換刀裝置/雙刀庫(每刀庫16把刀)  
主軸錐孔清潔吹氣  
三軸潤滑油獨立收集裝置  
中央集中自動進給潤滑裝置  
落地移動式操作箱  
分離式手搖輪  
X軸全閉環光學尺，Y/Z軸絕對式位置檢出器  
X/Y/Z軸行程極限硬體保護  
集塵系統：機頭吸塵裝置、地板集塵裝置  
全密閉式防護鈹金  
電氣箱配備熱冷氣機  
主軸鬆刀開關  
工作燈  
程式結束及警示燈  
RJ45網路傳輸  
遠端監控軟體-標準版(不支援SIEMENS控制器)  
M30自動斷電功能  
Z軸斷電自動上拉功能  
地基水平墊塊及基礎螺栓  
調整用工具及工具箱  
技術手冊(操作、保養手冊及電路圖)

## Standard Accesories and Functions

HEIDENHAIN TNC640 controller  
Spindle 24,000rpm with tool shank HSK-A63  
2 Pallets changer  
ATC/Double magazines (16 tools per magazine)  
Air blast through spindle  
Independent lubrication oil collector  
Centralized auto lubrication system  
Portable floor operation panel  
Movable manual pulse generator  
X axis linear scale feedback, YZ axis absolute pulse coder feedback  
XYZ axis travel hard limits protection  
Dust suction device: spindle and ground  
Enclosed splash guard (with roof)  
Air conditioner electrical cabinet  
Tool clamping switch  
Working lamp  
Operation cycle finish and alarm light  
RJ45 interface  
Remote monitoring software-Standard (Not available for Siemens controller)  
M30 auto power-off  
Z axis auto pull with power-off  
Foundation pads and bolts kits  
Adjustment tool and tool kits  
Technical manuals: Operation, maintenance manual and circuit diagram

## 選配附件與功能

SIEMENS 840D SL控制器  
Y/Z軸全閉環光學尺  
旋臂式操作箱  
變壓器  
變穩壓器一體  
自動換刀裝置/雙刀庫(單一刀庫24把刀)  
自動換刀裝置/雙刀庫(單一刀庫32把刀)  
自動刀長量測系統  
自動工件量測系統  
真空吸盤裝置  
雷射測距儀  
超低溫冷風槍  
操作側清潔水槍及空氣接口  
遠端監控軟體-專業版(不支援SIEMENS控制器)

## Optional Accesories and Functions

SIEMENS 840D SL controller  
YZ linear scale feedback  
Arm type operation panel  
Transformer  
Transformer + Voltage stabilizer  
ATC/Double magazines (24 tools per magazine)  
ATC/Double magazines (32 tools per magazine)  
Auto tool length measurement  
Auto workpiece measurement  
Vacuum chuck  
Laser positioning sensor  
Ultra-low temperature spiral tube cooler  
**Wash gun and pneumatic interface**  
Remote monitoring software-Professional(Not available for Siemens controller)