智研科技有限公司
INTEK Technology

專業CNC控制器研發製造
Professional CNC Controller Developer

M83 銑床精簡易用控制器

M83 milling machine easy using simplify controller

EtherCAT (V mode) 閉迴路串列控制技術

M83 使用 **EtherCAT**(V mode) 閉迴路串列控制技術，高密度電路技術，智研科技的成熟 **EtherCAT** CNC 控制技術和實務應用經驗整合成：結構緊緻，精簡，易用的三軸銑床控制器。

EtherCAT (V mode) closed loop serial control technology

M83 uses **EtherCAT** (V mode) closed loop serial control technology and high-density circuit technology, Intek Technology's mature **EtherCAT** CNC control technology and practical application experience integrated into: structural compact, streamline, easy-to-use three-axis milling machine controller.

可靠度高，易於使用

M83 系統為一易於使用，可靠度高，容易接機整合，低維護成本的經濟型 CNC 控制器。適用於不用換刀裝置的銑床，並極適合翻修與改裝傳統銑床 (knee type and bed type milling) 為簡易 CNC 銑床。

High reliability and easy to use

The M83 system is a economical CNC controller which is easy to use, high reliable, easy integrate and low maintain cost. It is suitable for milling machine without ATC and good for traditional milling machines (knee type and bed type) retrofit, modify to simple CNC milling machine.

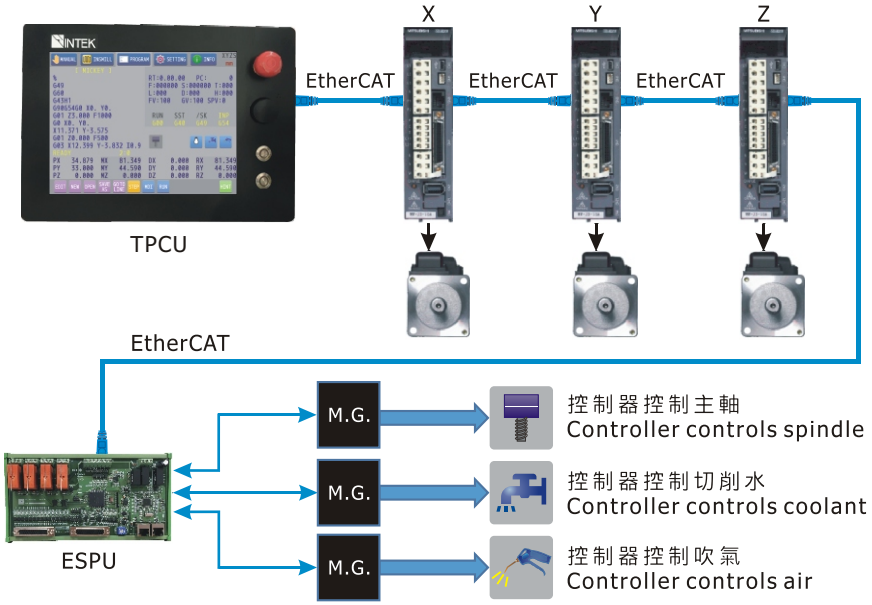
極簡易的整合

使用 **EtherCAT** 串列技術連接控制器與伺服系統，簡潔的系統組成，使得配線及整合得以簡易。

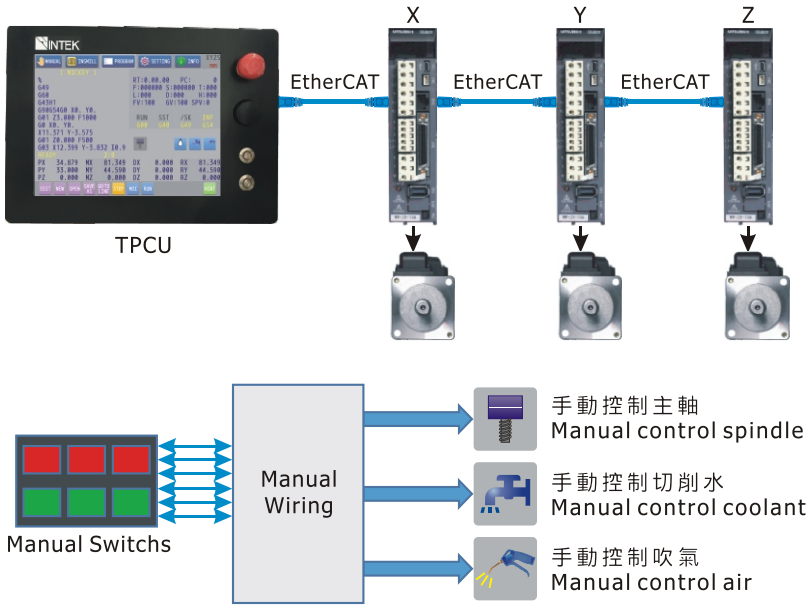
The integration is extremely easy

The controller and servo device were connected by **EtherCAT** serial technology and tidy system made wiring and integration became easy.

系統控制主軸, 冷卻液, 吹氣
System control spindle, coolant, blowing



手動控制主軸、切削水、吹氣
Manual control spindle, coolant, air

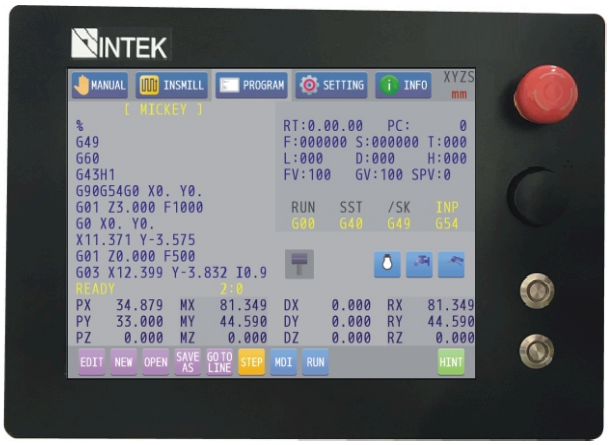


極友善簡單的操作

控制器具備觸控螢幕、按鈕、旋鈕與高親和度的人機介面，使得操作直覺簡易。

Friendly and simple operation

The controller equips touch screen, button, knob and friendly user interface so the operation is intuitive and simple.



PWR， EtherCAT， USB

緊急壓扣開關
Emergency button switch

多功能旋鈕
Multi-function knob button

多功能按鈕
Multi-function button

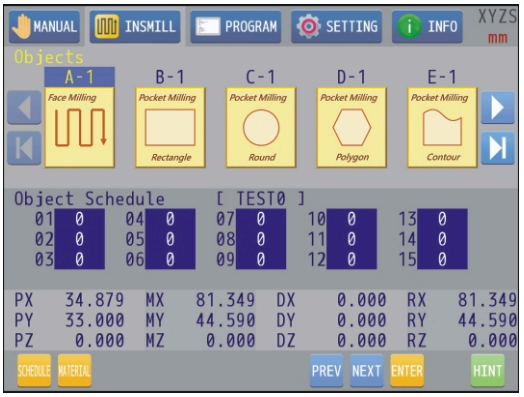
多功能按鈕
Multi-function button

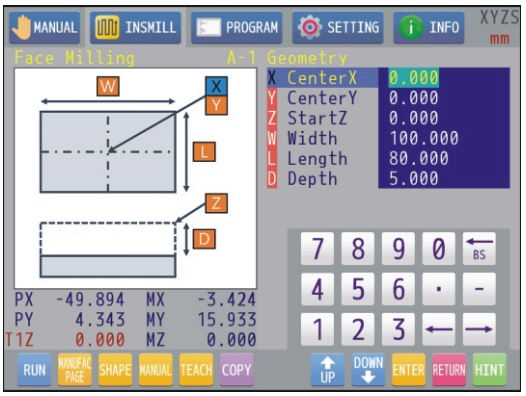
內建實用的加工物件

M83內建圖示工件物件，只需輸入工件資料，即可進行實用的工件物件銑削如面銑、挖槽、鑽孔。

Build-in practical object of cutting

M83 built-in just graphical work piece object, it can perform practical work piece object milling just enter data. For example: Facing, pocket, drilling.





不用歸零

搭配可記憶位置的絕對型伺服驅動器，開機不用歸零，銑床無須安裝極限開關。

No need to zero return

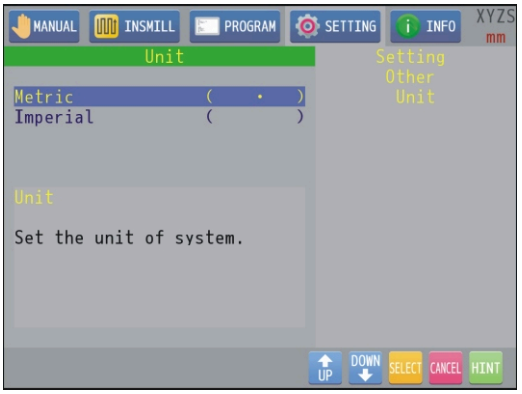
With absolute servo drivers that can memorize the position. It is no need zero return when power on, and milling machine doesn't need install limit switches.

提供公制與英制

不論配置公制或英制導程螺桿，皆可用公制單位或英制單位使用。

Providing metric and imperial

Either metric or imperial units can be used, no matter lead screw is metric or imperial.



規格表
Specification Table

規格項次 Specification line	M83
TPCU 控制單元 TPCU controller unit	10.4 吋彩色觸控螢幕 多功能旋鈕 多功能按鍵 急停扣押開關 10.4 inch color touch screen Multi-function knob Multi-function button Emergency stop lock switch
ESPU(I/O) 選項單元 ESPU(I/O) optional unit	S 碼 DA 輸出 M03,M04 輸出 M07,M08 輸出 客戶定義 M 碼外部裝置輸入和輸出 S code DA output M03,M04 output M07,M08 output Customer defines M code for external device output and input
EtherCAT 伺服系統 **EtherCAT** servo system	智研 / 士林 Intek/Shihlin
控制軸數 Control axis number	**EtherCAT** (V mode) 串列式 X， Y， Z 三軸 **EtherCAT** (V mode) serial control X, Y, Z three axes
直線同動軸數 Number of linear simultaneous axes	三軸 Three axis
圓弧同動軸數 Number of arcs	二軸 Two axis
螺線同動軸數 Number of helical axes	三軸 Three axis
座標偏移 Coordinate offset	Basic 1 set optional 6 set (G54~G59)
物件排程 object schedule	編輯加工物件 , 排序執行加工 Edit machining objects, execute scheduled process
圖示加工物件 Graphical work piece objects	面銑 , 挖槽 , 鑽孔 , 攻牙 Facing, pocket, drilling, tapping
標準 G 碼 Standard G code	ISO G 碼 (選項) ISO G code(optional)
快速定位 Rapid positioning	12 M/MIM
插值同動速度 Interpolate Speed	6 M/MIN
高速高精 High speed and high precision	內建 Built-in
剛性攻牙 Rigid tapping	主軸具備編碼器 (1024PPR) 可剛性攻牙 The spindle with encoder (1024PPR) can do rigid tapping

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第 4 版 (4th Edition), 2019/9/24

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