



Various combinations of hydro-static slideways, spindle, bearings, leadscrew and nuts are available, subject to customer's application machine sizes and budgetary requirements.

可依客戶研磨應用與設備規格及成本需求，提供油靜壓軌道、主軸、螺桿+螺帽、軸承等複合化之油靜壓磨床。



CHEVALIER®



CNC Profiles Grinders Automatic Grinders Linear Motor CNC Profile Grinder VMC (Various Sizes) VMC w. turntable CNC VTL w. Double Turret CNC VTL Slant Bed CNC Lathes Teach-in Lathes

Grinder VMC Vertical Lathe Lathe

奈米油靜壓CNC磨床系列 Nano Precision Hydro-Static CNC Grinder Series



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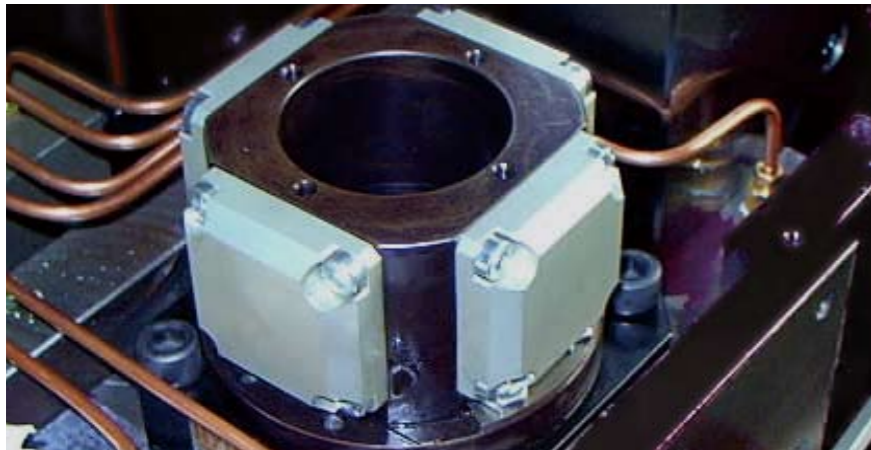
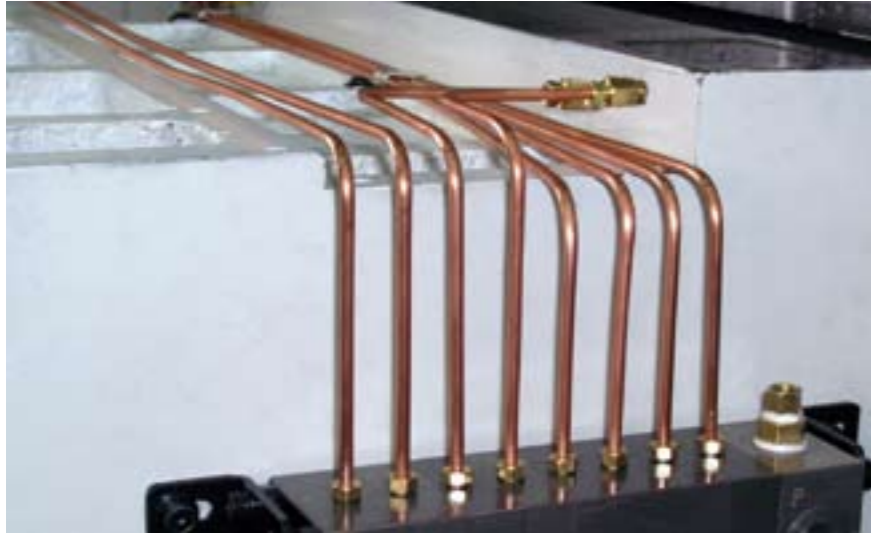


A big step from μm to Nano class precision.

□□□ μm 進化到奈米(Nano meter, nm)的先鋒。

奈米油靜壓CNC磨床系列

Nano Precision Hydro-Static CNC Grinder Series



Advanced Hydro-Static Technologies
福裕先進的油靜壓科技

Actual downfeed accuracy 0.0001mm

實際進刀精度 0.0001mm

Surface Roughness Ra 0.02 μm

鏡面研磨表面粗糙度 Ra 0.02 μm

EXAMPLE 加工範例

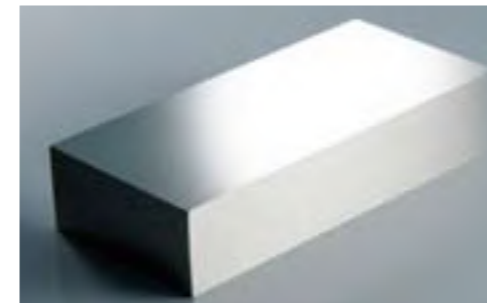
Material/工件材質:SKD11

Material Size/工件尺寸:100X50X15mm

Machine Time/加工時間:60min/60分

Point of interest 展示重點:鏡面研磨

Grinding Wheel/砂輪型式	38A600H9E
Accuracy/加工精度	0.001mm
Roughness/工件粗度	Ra0.02 μm



Achieving New Grinding Era

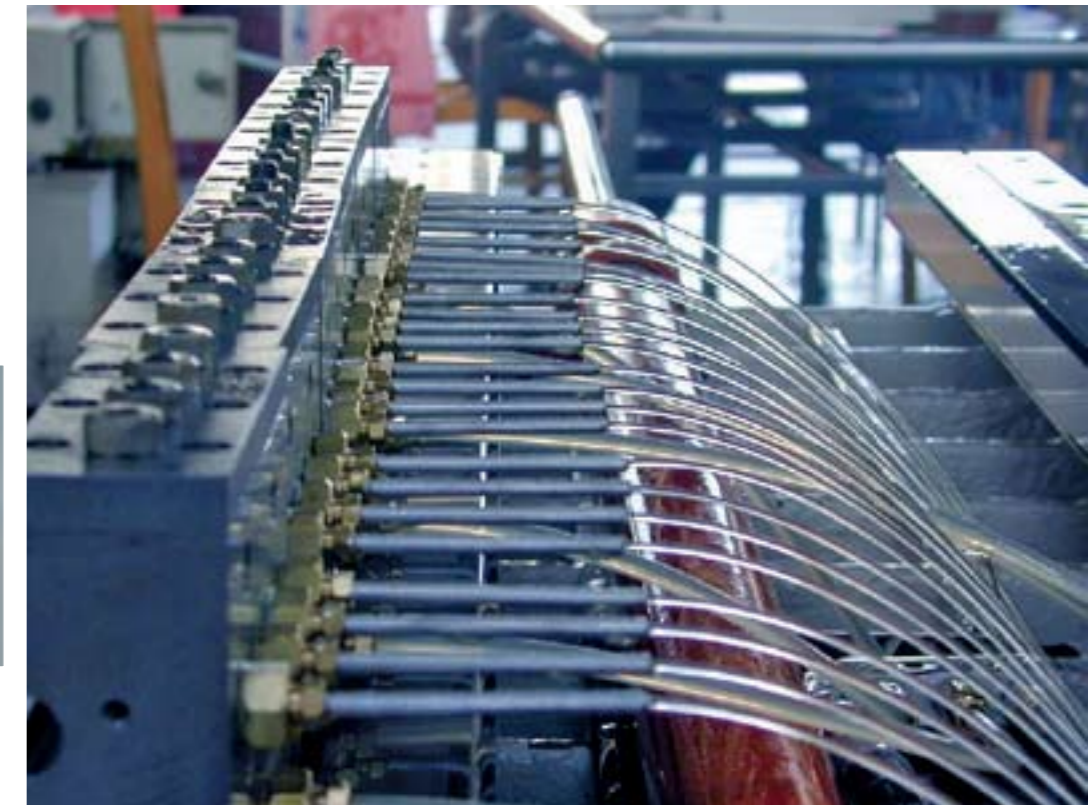
Hydro-static grinder has low friction and high rigidity characteristics, not only good for heavy duty grinding, but also for superior accuracy performance (0.1 μm down feed accuracy). Various combinations of Hydro-static guide ways, spindle, leadscrews and bearings are available upon customer's request. Mirror surface grinding can be obtained without polishing process. Optional wheel dresser is available for ultra high precision form grinding.

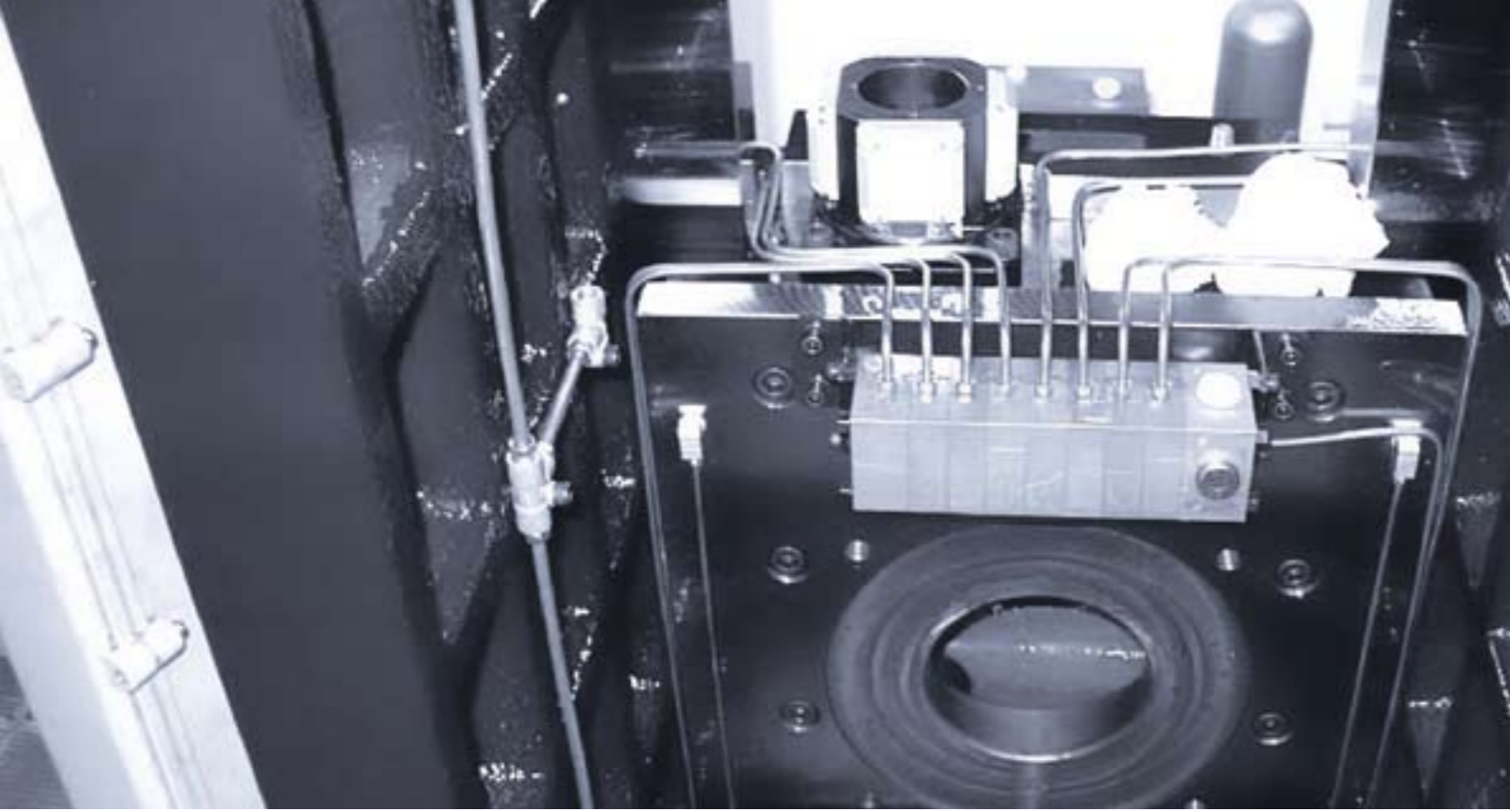
Low friction between Hydro-Static components to assure superior accuracy and longevity. Low start-up power rating and high oil film rigidity improves grinding surface finish.

展現加工精度新標準

油靜壓磨床具有低磨擦、高剛性之特性，不僅可進行重切削，更可做精密切削(達0.1 μm 的進刀精度)，可依客戶需求選擇搭配各式油靜壓滑軌/主軸/螺桿/軸承等組合，不需要拋光加工過程也有能力達到高效率、高精度、高品質之鏡面研磨。配備砂輪修整裝置即可執行『超精密成型研磨』。

油靜壓零組件從起動到停止始終在液靜壓潤滑下工作，所以沒有磨損，使用壽命長，起動功率小，油膜剛性大、能抑制振盪等優點提升工件研磨表面品質。





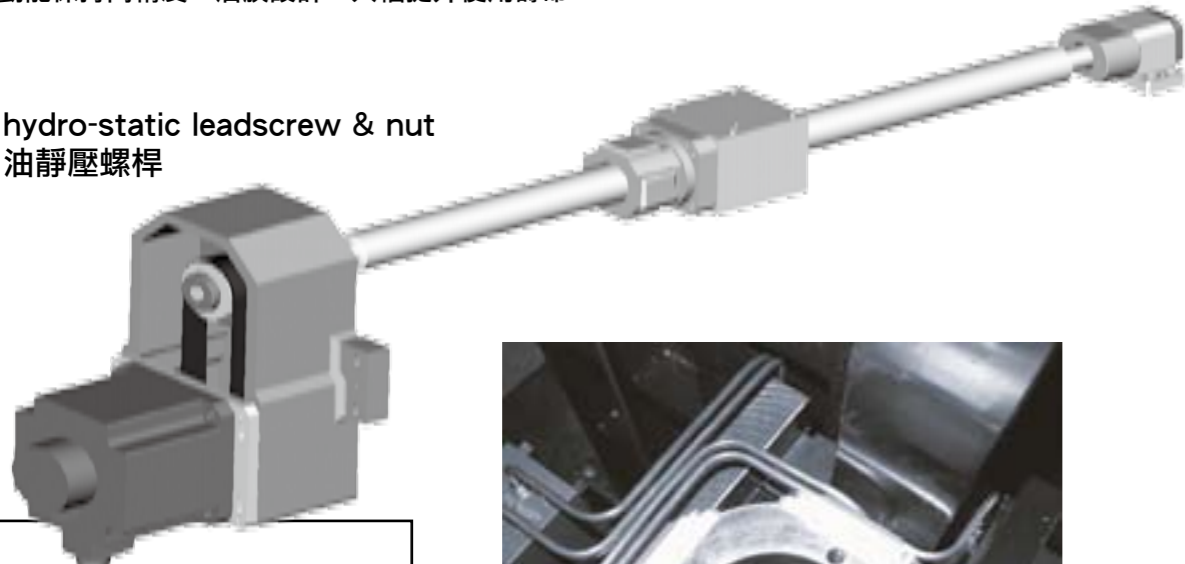
"C" shape high rigidity frame design
機械採用高剛性的 "C" 型設計



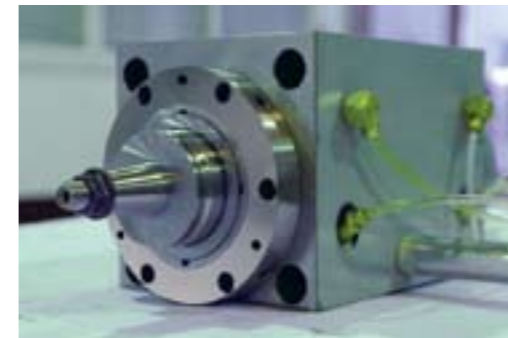
Longitudinal/crossfeed available for hydro-static leadscrew and bearings design
傳動機構採用油靜壓螺桿

Longitudinal/Crossfeed available for hydro-static leadscrew and bearing design, Providing long term accuracy.
Oil film lubrication providing almost no friction wear on moving parts.
傳動機構採用油靜壓螺桿及止推軸承，能確保高速、高精度運動，長時間運動能保持高精度。油膜設計，大幅提升使用壽命。

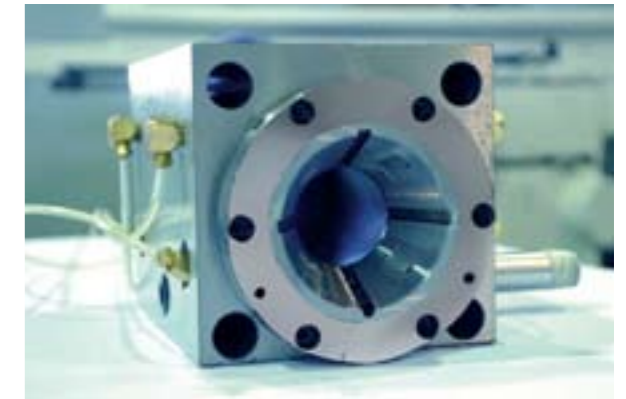
hydro-static leadscrew & nut
油靜壓螺桿



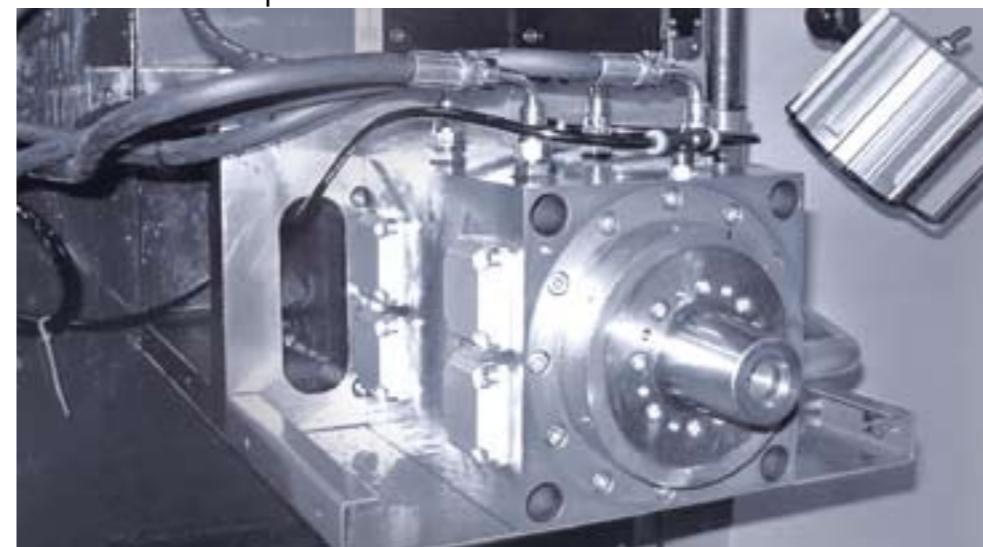
hydro-static bearing
升降油靜壓螺帽



Hydro-Static spindle
油靜壓主軸設計



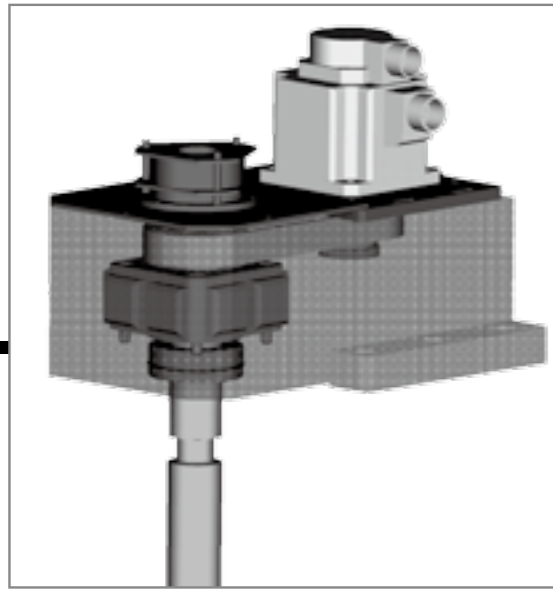
Hydro-Static spindle bearing design
油靜壓主軸軸承設計



Hydro-Static Spindle
油靜壓主軸

Air purged design prevents spindle from contaminations by coolant and swart
油靜壓主軸特殊氣密式防塵軸封設計。

Hydro-Static Oil System
主軸油靜壓單元

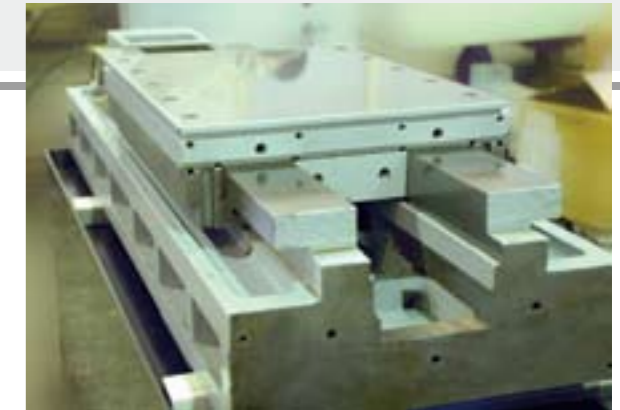
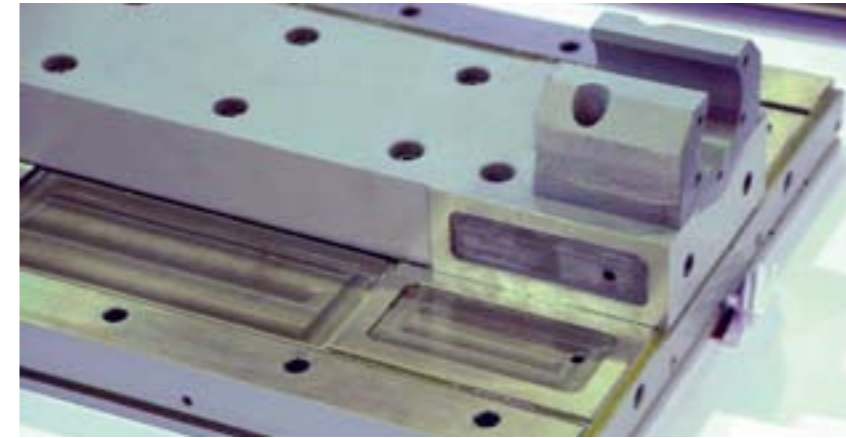


Hydro-static Elevating
Transmission Mechanism
油靜壓升降進刀機構

Elevating Transmission
Mechanism
昇降傳動機構

Hydro-static down feed is available to achieve 0.0001mm actual down feed accuracy.

昇降傳動機構可採用油靜壓軌道/螺桿及軸承，能確保高精度、定寸、無遲滯現象、實際進刀精度達0.0001mm。



Hydro-Static table mechanism
油靜壓工作台機構

Table Hydro-Static pocket design
工作台油靜壓油室設計

With Hydro-static leadscrews/guideways/spindle and bearings.
Excellent for high accuracy and mirror surface grinding
油靜壓機構技術能，提供高精度與鏡面切削之高超性能

Hydro-static longitudinal table slide ways.
With box way flat surface contact.
Max. loading capacity.
工作台進給軌道採油靜壓滑軌。
矩形軌道、平面接觸設計。
承載力更大、精度更久。

Hydro-Static table Layout tubing
油靜壓工作台油路控制

