

Round up

Grinding-Information by Studer / Studer 最新研磨資訊

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Synchronous driven tailstock

Synchronous drive of the workpiece allows the complete machining in one set-up. Complex changeovers to additional operations are avoided, at the same time costly downtimes are eliminated.

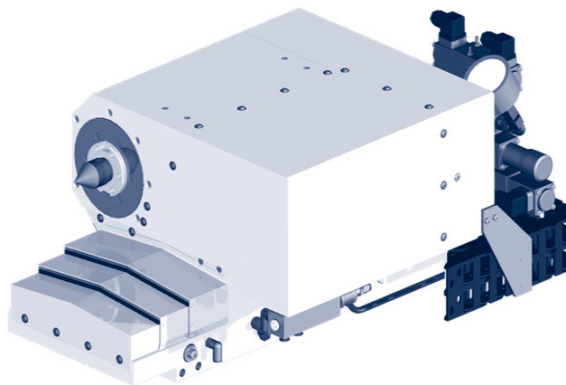
Tailstock The travel of the tailstock barrel of 90 mm / 3.54" simplifies the changeover to a new workpiece. Part families can be set-up with minimal effort within shortest time. This leads to a substantial increase of productivity.

Increase of dimensional accuracy in relation of form- and positional tolerances on the ground workpiece. Highest requirements of quality can be met much easier.

Technological innovation in the production thanks to the elimination of expensive driving systems. In the simplest case two standard centers are adequate either for conventional- or high speed grinding at 140 m/s / 27'580 sfpm.

The drive of the workpiece is guaranteed by friction drive between the machine centre and the centre in the workpiece.

The synchronous driven tailstock is hydraulically operated and equipped with an electronic measuring system which allows simple readjustment. Closing speed as well as positioning speed can be adjusted individually with control valves.



同步尾座

Synchronous 工件的同步驅動允許在一套裝置中完成完整的加工。避免額外複雜操作轉換外，亦消除了代價成本高昂的停機時間。

Tailstock 尾座筒的行程為 90 mm/3.54" 簡化了新工件的轉換。可以在最短時間內以最少的步驟設置零件群。這可以將生產率大幅提高。

Increase 提高研磨加工中工件的尺寸精度，使其符合形狀和位置公差要求，輕鬆實現最高品質要求。

Technological 在齒輪加工和研磨機等工具機廠商製程中，透過消除昂貴的驅動系統，實現了製程中的技術創新。在最簡單的應用情境中，僅需兩個標準頂心即足以因應傳統研磨、甚至 140 m/s 的高速研磨。

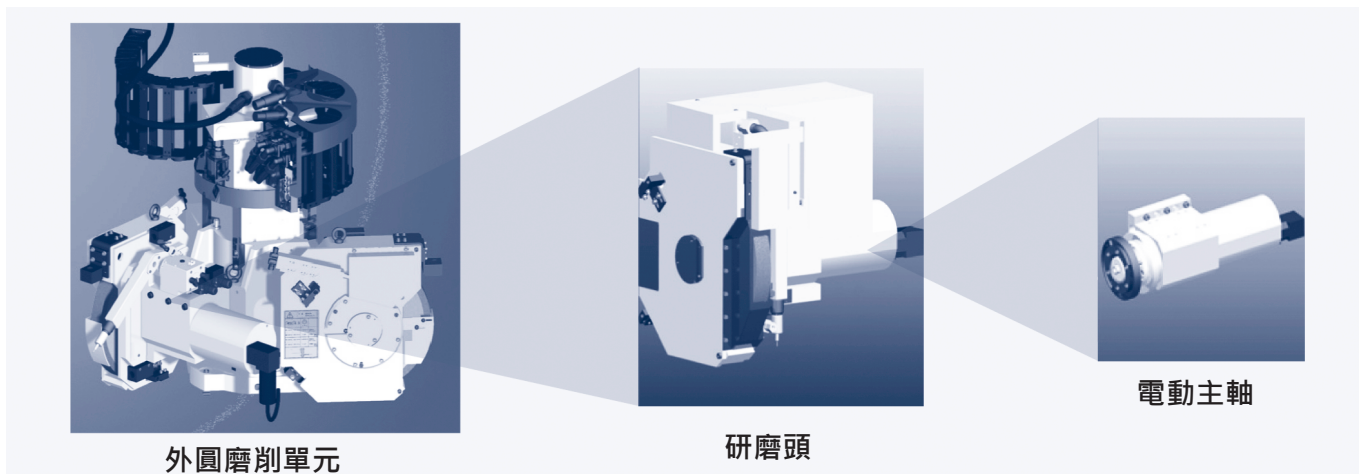
工件的驅動通過機床中心和工件中心之間的摩擦來實現。同步尾座使用液壓操作，並且配置了電子測量系統，讓使用者能簡單進行再調整操控。此外，控制閥亦可個別調整關閉速度和定位速度。

The Art of Grinding.

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S32cnc Wheelhead left / left highspeed grinding

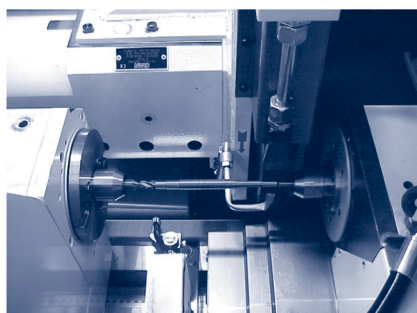
S32 CNC 主軸左側/ 左側高速研磨



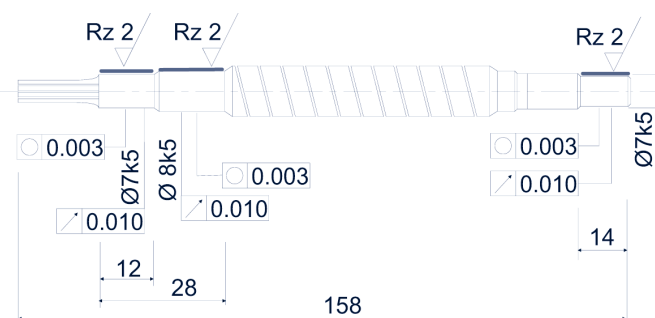
The S32 in hsg-version equipped with a synchronous driven tailstock, is most suited for the mass production of cylindrical parts with sufficient centres at both ends for driving purposes.

在裝配同步尾座的 S32 HSG 版，最適合具有足夠中心點的圓柱形零件的大規模生產，以便進行製程。

Application Armatur shaft



電機動子軸應用



Part driven by centre only

Grinding time 3 dia.	17 sec
Roundness	< 1 μm (0.000.04")
Cylindricity	< 1 μm (0.000.04")
Surface finish Rz	< 2 μm (0.000.08")
Cmk 50 Parts	> 1.67

由中心驅動的零件

研磨時間 3 dia	17 sec
圓度	< 1 μm (0.000.04")
圓柱度	< 1 μm (0.000.04")
表面精度	< 2 μm (0.000.08")
Cmk 50 Parts	> 1.67

Technical Data

Centre height	175 mm (6.9")
Max. workpiece weight	50 kg (110 lbs)
Drive power	1.4/1.6 kW (1.9/2.2 hp)
Max. drive	3000 rpm
Speed control	synchronous
Spindle bearing	Roller bearing
Spindle bore	26 mm (1.02")
Fitting taper	MT4
Workpiece clamping	hydraulic
Travel range	90 mm (3.45")
Clamping force	10 – 1900 2.2 – 427 pound-force
Clamping force regulation	throttle
Fine adjustment	$\pm 80 \mu\text{m}$ (0.0032")

Use with:

dead centers
live centers
Spring collet
Power chuck \varnothing 160 mm (6.3") max
Power chucking cylinder \varnothing 155 mm (6.1") max

Restrictions:

Centre distance is reduced by approx. 200 mm / 7.87"
Dressing from tailstock not possible
No C-axis function possible
Requires roller bearing workhead

技術規格

頂心高度	175 mm (6.9")
工件最大重量	80 kg (176 lbs)
主軸功率	1.4/1.6 kW (1.9/2.2 hp)
主軸轉速	3000 rpm
速度控制	同步
主軸軸承	滾子軸承
主軸孔徑	26 mm (1.02")
配合錐度	MT4
工件夾持	液壓
行程	90 mm (3.45")
夾持力	10 – 1900 2.2 – 427 pound-force
夾持原理	機電式 帶彈簧
圓柱度校正的微調	$\pm 80 \mu\text{m}$ (0.0032")

與以下一起使用:

固定中心
旋轉中心
彈簧夾頭
動力卡盤 \varnothing 160 mm (6.3") max
動力夾持氣缸 \varnothing 155 mm (6.1") max

限制:

頂心距離減少約 200 mm / 7.87"
無法從尾座進行修整
無法執行C軸功能
需滾子軸承工件軸



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