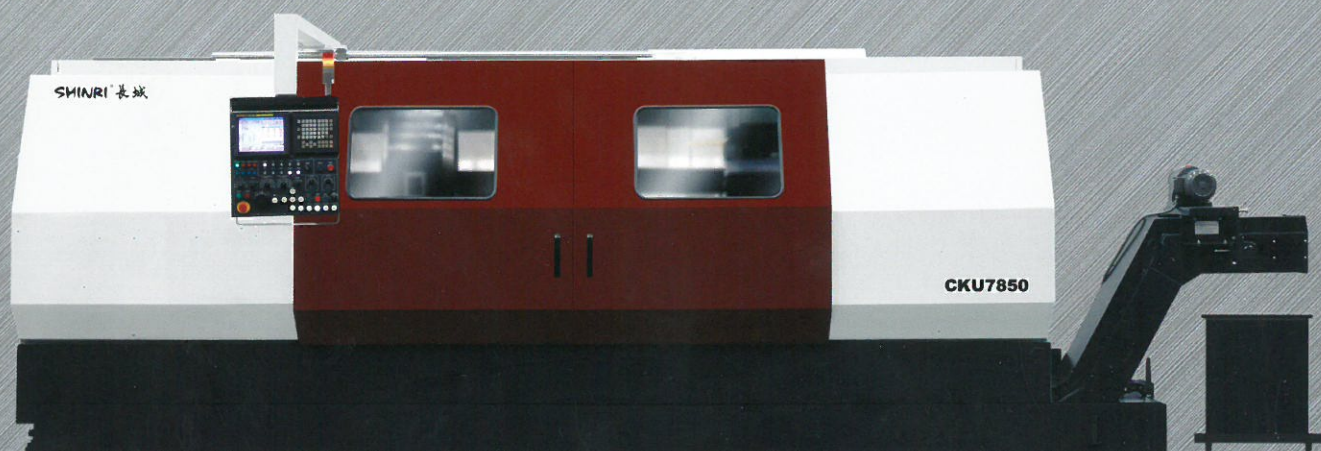


SHINRI® 新瑞

CKU系列 中间驱动数控车床

CKU SERIES CENTER DRIVE CNC LATHE



新誉集团有限公司
New United Group Co., Ltd

CKU SERIES CENTER DRIVE CNC LATHE



CKU系列中间驱动数控车床，系四坐标两轴联动，半闭环数控车床，适用于各类汽车后桥壳及两端需要同时车削的回转体轴类零件。控制系统采用日本FANUC Oi-TD系统；该机床的两个8位电动刀台分别布置在床身的两端，每个刀台上可选装有一个轴向检测装置，机床根据检测值，自动改变刀架轴向位置，从而可实现零件加工前的机内轴向尺寸检测，满足零件余量均分的加工要求。马达装置、驱移装置和中间驱动装置构成了机床的主传动链。驱移装置将主电机输出的动力

通过联轴器和花键轴传至中间驱动装置，控制中间驱动装置的原位和终点位置，实现主轴的准停；中间驱动装置是机床主传动系统的终端，它通过过渡轴接受驱移装置花键轴传来的动力，实现本身的转动，从而驱动工件转动。

CKU series center drive CNC lathe is a four axes, two axes synchronous motion, semi-closed CNC lathe. It can be applied into machining rear shell and

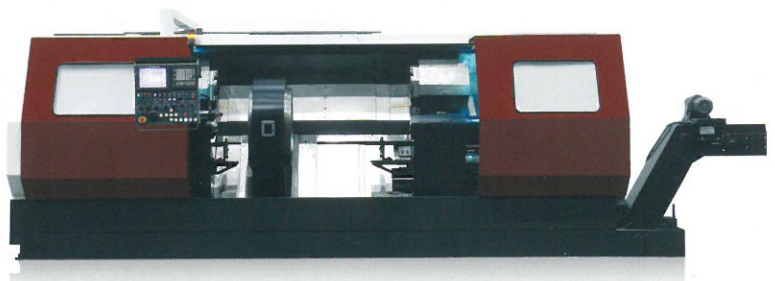
shaft work piece need to be machined at both ends. The control system is FANUC Oi-TD from Japan. The two electrical turrets with 8 tool positions on each placed at each end of the machine bed. On each turret, optional inspection device can be installed. the system automatically set turret axial position according to the inspected value, that enables the machine inspect axis dimension before machining in order to meet the average machining requirements. Motor device, drive device and central driving device consists of a machine transmit chain. The driving system transmits the power from the motor to the central driving device through flexible connector and spline shaft, that controls the central device and makes the spindle stop at required position; the central driving device is the end of the transmit system, it received power from transitional spline shaft and drive itself and at the same time drive the work piece.

机床特点

Machine characteristic

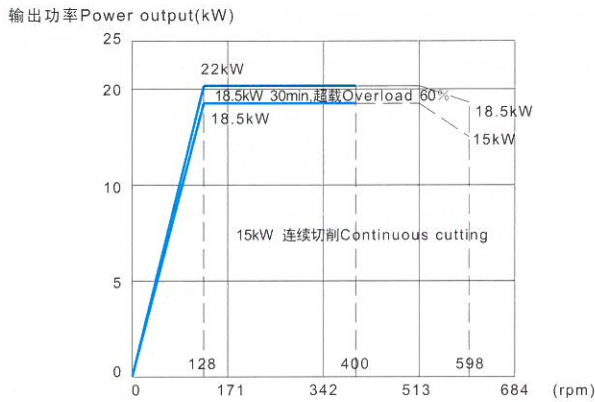
- 床身倾斜滑动贴塑矩形导轨，刚性强、排屑性能好；
- 电液一体化设计，结构紧凑，排屑方便，造型美观；
- 采用高性能的主轴伺服系统，变速范围大，可实现恒线速切削；
- 纵、横向驱动采用高性能交流伺服电机驱动，定位精度高，动作灵活可靠；
- 整机实现了严密的防渗漏全封闭防护设计；
- 采用集中润滑装置，润滑充分可靠，润滑周期自动控制；
- 采用可移动中间驱动装置，扩大了上下料空间；
- 带回转芯轴的液压力尾架，采用死顶尖顶紧，刚性强，精度高，随动性能好；
- 冷却系统采用了高扬程软体泵，可得到强劲的切屑清理和冷却效果；
- 配备自动排屑装置，切屑自动排出机外；
- 八位电动转塔刀架，可实现双向就近自动换刀。

- The slant bed and the guide ways with plastic cover makes sure the machine's high rigidity and easy chip fall.
- The logical and beautiful layout consists of mechanical, electrical and hydraulic.
- With high performance spindle servo system, it ensured the large spindle speed range and can realize the constant speed cutting.
- X and Y axes are with high performance servo motor and high accuracy ball screw, which features in high positioning accuracy and flexible operation.
- The whole machine is with anti leaking cover.
- With auto central lubrication system that is automatically controlled and makes sure each part is fully lubricated.
- Removable center drive broadened rooms for load & unloading.
- The machine is with rotary core axes in the hydraulic tail stock. It works with the final, which makes sure of high rigidity and high accuracy.
- There are high lift soft pump in the cooling system that are very effective in cleaning and cooling.
- With automatic chip conveyor, so that the chip can be moved automatically.
- The eight position electrical turret is able to swap tool at both directions.

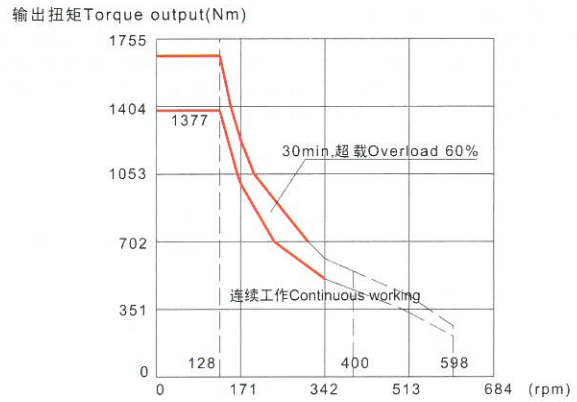


CKU7840

主轴输出功率曲线图
Curved diagram of spindle output power

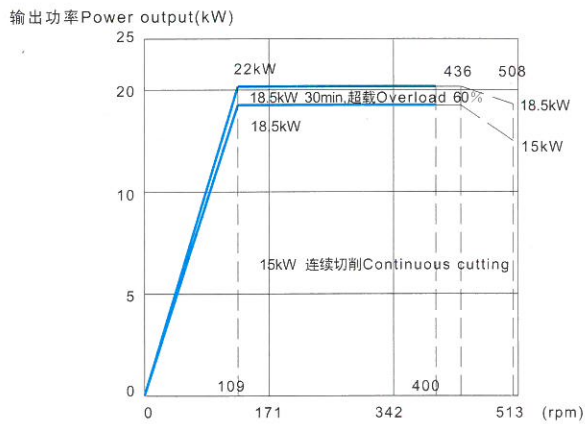


主轴输出扭矩曲线图
Curved diagram of spindle output torque

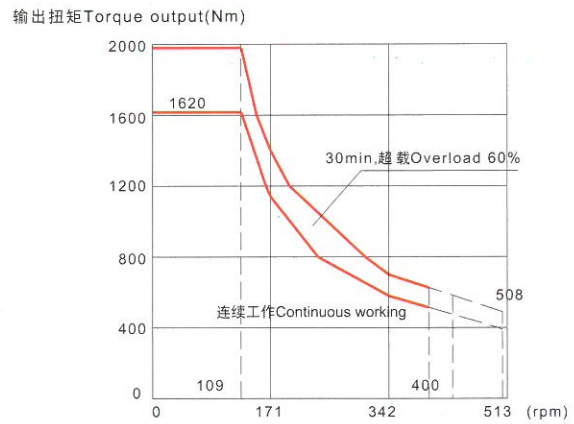


CKU7850

主轴输出功率曲线图
Curved diagram of spindle output power



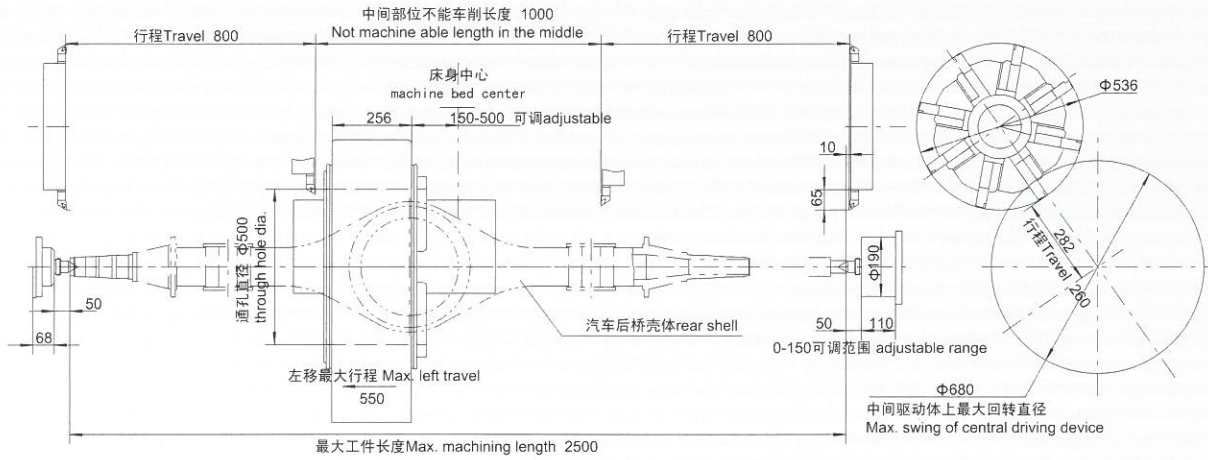
主轴输出扭矩曲线图
Curved diagram of spindle output torque



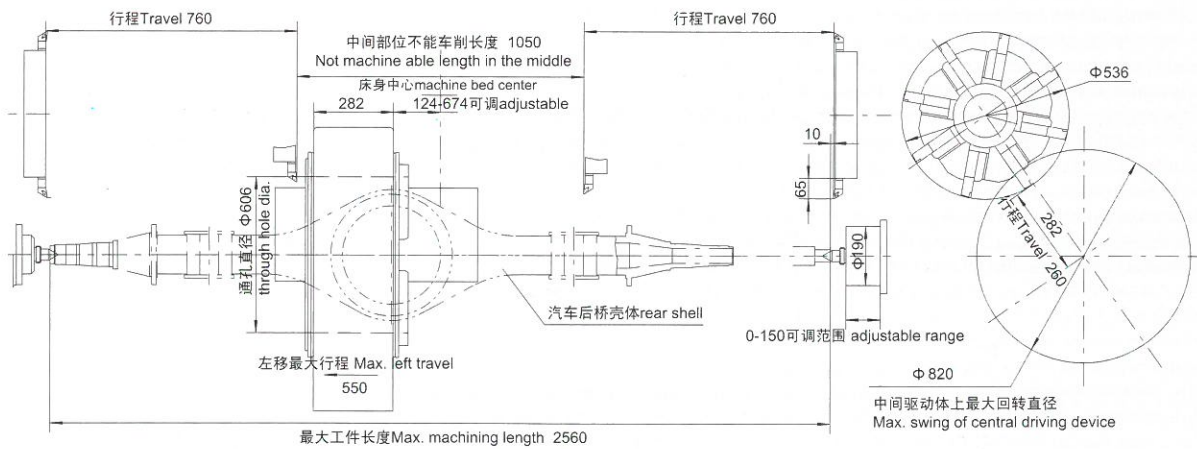
机床能力图

Machine tool capacity diagram

CKU7840



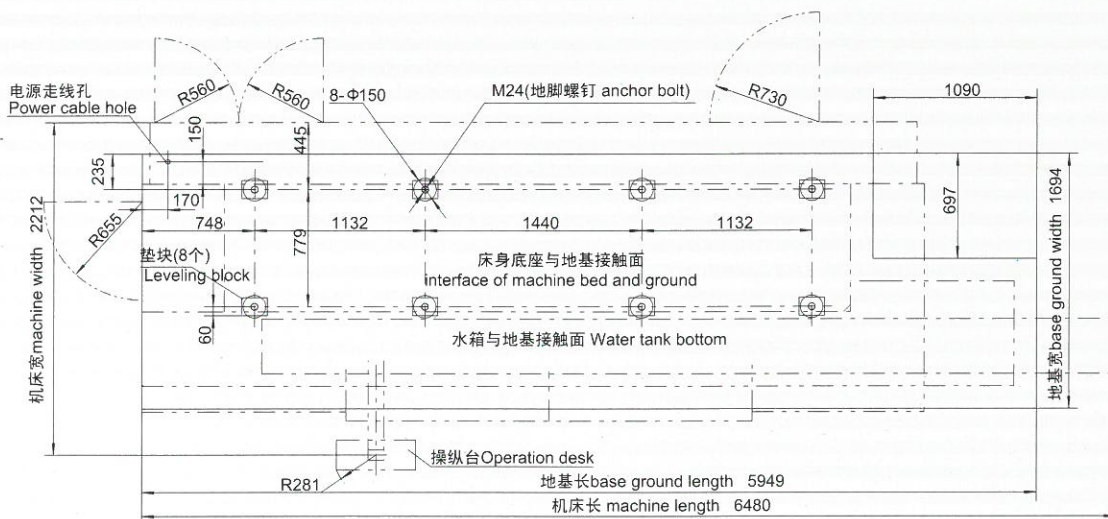
CKU7850



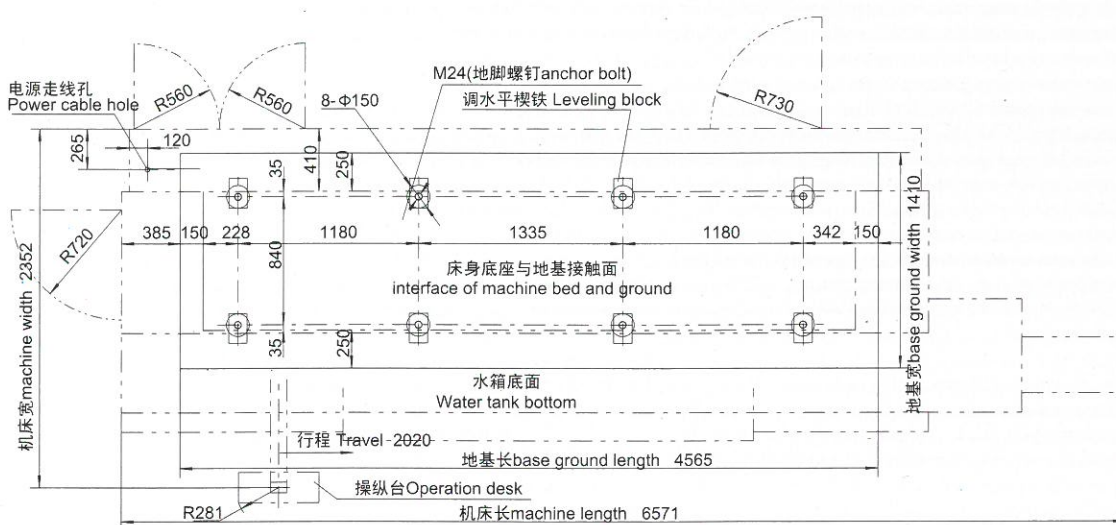
机床地基图

Machine tool foundation drawing

CKU7840



CKU7850



机床参数		Machine tool specification		CKU7840	CKU7850	
最大车削外圆直径	Max. turning OD Dia.	mm		Φ400	Φ500	
最小车削外圆直径	Min. turning OD Dia.	mm		Φ50	Φ50	
最大车削长度	Max. turning length	mm		2500	2560	
中间部分不能车削长度	Unmachined parts in the middle	mm		920	1050	
主轴中心至床身导轨面高度	Distance between spindle center line and floor	mm		405	475	
主轴中心至地面高度	Distance from spindle center to the floor	mm		1172	1198	
床身上最大回转直径	Max. swing diameter over bed	mm		Φ810	Φ930	
床鞍上最大回转直径	Max. swing diameter over saddle	mm		Φ490	Φ490	
中间驱动装置上最大回转直径	Max. swing of central driving device	mm		Φ680	Φ820	
中间驱动装置	主轴转速范围	Central driving device	Spindle speed range	rpm	25~400	25~400
	主轴转速级数		Spindle speed step		无级 stepless	无级 stepless
	通孔直径		Through hole dia.	mm	Φ500	Φ606
横纵向伺服电机	横纵向快速进给速度 X/Z	Servo motor	X/Z axes rapid	m/min	12/12	12/12
	额定功率 X/Z		X/Z rating power	kw	3/3	3/3
	额定扭矩 X/Z		X/Z rating torque	Nm	12/12	12/12
刀具	刀具横截面(宽×高)	Tooling	Tool section(W×H)	mm	25×32	25×32
头架	顶尖芯轴锥孔	Lathe-hedd	Final core shaft taper		莫氏 Morse 6#	莫氏 Morse 6#
	套筒手动可调行程		Quill adjustable travel	mm	0~150	0~150
尾架	顶尖芯轴锥孔	Tailstock	Final core shaft taper		莫氏 Morse 6#	莫氏 Morse 6#
主轴电机功率	Spindle motor power	kw		18.5/22	18.5/22	
水泵扬程	Water pump high lift			高扬程	高扬程	
刀台位数	No. of tool position			2×8	2×8	
机床外形尺寸(长×宽×高)	Machine dimension (L×W×H)	mm		6490×2475×2200	6590×2600×2230	

机床配置		Machine Configuration		CKU7840	CKU7850
数控系统	CNC system			FANUC 0i-TD	FANUC 0i-TD
加工长度	Machining length			2500mm	2560mm
主传动类型	Main transmission type			伺服 Servo	伺服 Servo
主电机功率	Main motor power			α18i(18.5/22kW)	α18i(18.5/22kW)
中间驱动体最高转速	Max. speed of central driven device			400rpm	400rpm
进给伺服电机	Feed servo motor			α12i / α12i	α12i / α12i
滚珠丝杠	Ball screw			汉江 HANJIANG	汉江 HANJIANG
中间驱动体用球轴承	Central driving device ball bearing			FAG	国产 CHINA
中间驱动体用球轴承内径	Central driving device ball bearing ID			Φ560	Φ670
中间驱动体通孔直径	Central driving device through hole dia.			Φ500	Φ606
头架轴承	Face plate bearing			NSK	NSK
尾架轴承	Tail stock bearing			NSK	NSK
拨盘	Face plate			自制 China	自制 China
头架、尾架套筒直径/顶尖规格	lathe-hedd, quill dia./Final spe			Φ190/莫氏 Morse 6#	Φ190/莫氏 Morse6#
刀台	Turret			BSV200/8	BSV200/8
刀盘	Tool head			八工位 Eight tool positons	八工位 Eight tool positons
轴向检测测头	axis inspection head			标配 Standard	标配 Standard
排屑器	chip conveyor			标配 Standard	标配 Standard
三色报警灯	Tri-colored alarming light			选配 Optional	选配 Optional
减震垫铁	Shock absorber padding iron			选配 Optional	选配 Optional
空调	Air conditioner			标配 Standard	标配 Standard

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