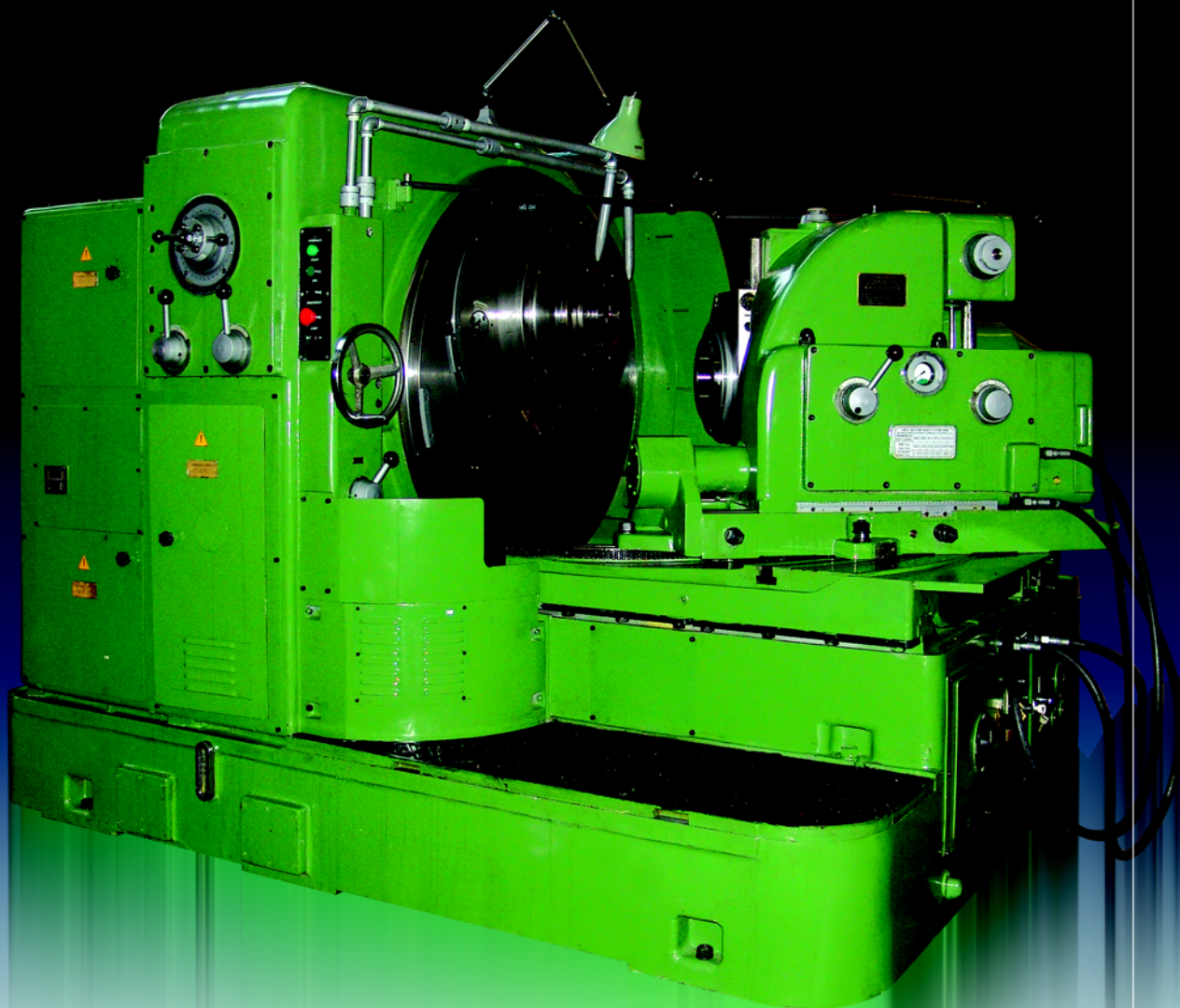




中国天津第一机床总厂
TIANJIN NO.1 MACHINE TOOL WORKS CHINA



Y2280

弧齿锥齿轮铣齿机
SPIRAL BEVEL GEAR GENERATOR

Y2280 数控弧齿锥齿轮铣齿机

一. 机床用途及使用范围

本机床可用于粗切、精切最大直径800毫米，最大模数15毫米的弧齿锥齿轮及准双曲面齿轮。

本机床最适用于成批生产，但也可用于大量和单件小批生产中，重型汽车、矿山机械、工程机械、船舶齿轮。

二. 机床主要特点

1. 本机床采用端面铣刀盘按滚切法原理工作，即被切齿轮齿形由刀具和被切齿轮相互配合滚动切削而获的。
2. 在粗加工弧齿锥齿轮或半滚切传动被动齿轮时，采用刀具均匀而简单的切入工件的加工方法从而获得很高的生产率。
3. 本机床采用组合齿轮结构，实现工件的跳齿分度，使切削热沿工件均匀分布。
4. 本机床有较强的结构刚性，可采用硬质合金刀具进行高速强力切削。
5. 本机床的工件夹紧，床鞍进退及快速摩擦离合器换向均采用液压操纵，切齿计数装置采用电气控制。

三. 动力电源参数：380V 50HZ

四. 电气主要参数：主电机功率：11kw，机床电气总容量：15KVA



SPIRAL BEVEL GEAR GENERATOR

1. Main Usage and Application of Machine

The machine is designed for roughing and finishing Spiral Bevel Gears and Hypoid Gears with the diameter up to 800mm and module to 15mm.

It is suitable for producing gears in mass production, and also in batch or jobbing production. The produced gears are usually used for medium & heavy load trucks, mine machineries, construction machineries and shipbuilding, ect.

2. Main Features of Machine

1. The machine adopts a circular face-mill type cutter to cut the gears with generating method. The tooth profile shape is produced by the generated method in which a relative rolling motion takes place between the gear and rotating cutter.
2. When roughing the Gear or the Formate Gear, the plunge feed method is usually used for getting the higher productivity of machine.
3. A combined gear with external and internal teeth is employed on the machine for implementing the block indexing. In this case, the cutting heats will be evenly distributed on the gear.
4. The machine is with a stronger structural rigidity so as to carry out the cutting operations with carbide cutting tools for having a high speed and brute force cutting.
5. A hydraulic system is adopted on the machine for clamping the workpiece, withdraw or advance of the sliding base and rapid reversing of the friction clutch. The counting device is controlled by the electrical system.

3. Power source: 380V 50HZ

4. Main Electrical parameter: Power of Main Motor, 11KW
Total Power Capacity, 15KVA

五. 机床主要技术规格 Main Specifications of Machine

(一)被加工工件尺寸 Work to be machined			
最大加工模数 Max. module	mm	15	
最大节锥母线长度（螺旋角30° ） Max. pitch cone distance(spiral angle 30°)	mm	420	
最大节圆直径（螺旋角30° 传动比10：1时） Max. pitch diameter(spiral angle30° at ratio10:1)	mm	800	
根锥角：最大84° 、最小5° 30′ Root angle: Max. 84° Min. 5° 30′			
最大传动比（轴夹角90° 时）Extreme ratio(shaft angle 90°)		10：1	
最大螺旋角 Max. spiral angle		45°	
最大切齿深度 Max. cutting depth	mm	32	
最大加工齿宽 Max. face width	mm	100	
加工齿数范围 Number of teeth		4—100	
(二)工件主轴 Work spindle			
主轴锥孔大端直径 Diameter of taper hole at large end	mm	153	
锥 度 Taper		1：20	
锥 长 Taper length	mm	180	
主轴通孔直径 Diameter of through hole	mm	125	
主轴法兰直径 Diameter of flange	mm	235	
(三)刀盘直径 Cutter diameter	6″ 、71/2″ 、9″ 、12″ 、18″		
(四)工件箱调整量 Setting of work head			
主轴最大垂直位移，自中心位置向上 Max. offset of work spindle: Above center 自中心位置向下 Below center 当主轴端面至机床中心距离调整在下列各值时 When the distance between machine center to nose of spindle is adjusted to the following readings: 125—270 270—330 330—540 主轴端面至机床中心距离 machine center to nose of spindle	mm	90 125—600	
(五)刀盘转速（有级） Cutter speed		rpm	10～142
(六)摇台调整量 Cradle setting			
调整角 Cradle angle			0° —360°
偏心鼓轮调整角 Eccentric angle			0° —180°
刀盘主轴的相应径向位移 Radial setting of cutter spindle	mm	0—340	
最大摇摆角 Max. cradle roll		60°	
(七)床位自中心最大位移 Sliding base setting Max. displacement from the machine center	mm	向前 ADV：25 向后 WITH：150	
(八)机床净重 Net weight	t	14	
(九)外形尺寸（长×宽×高） Overall dimensions (L × W × H)	mm	2600 × 560 × 385	

注: 随着产品不断更新, 技术数据将有所变更, 届时请联系我们。

Note: The specifications are reference for you only, because of the continuous development of our product.

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