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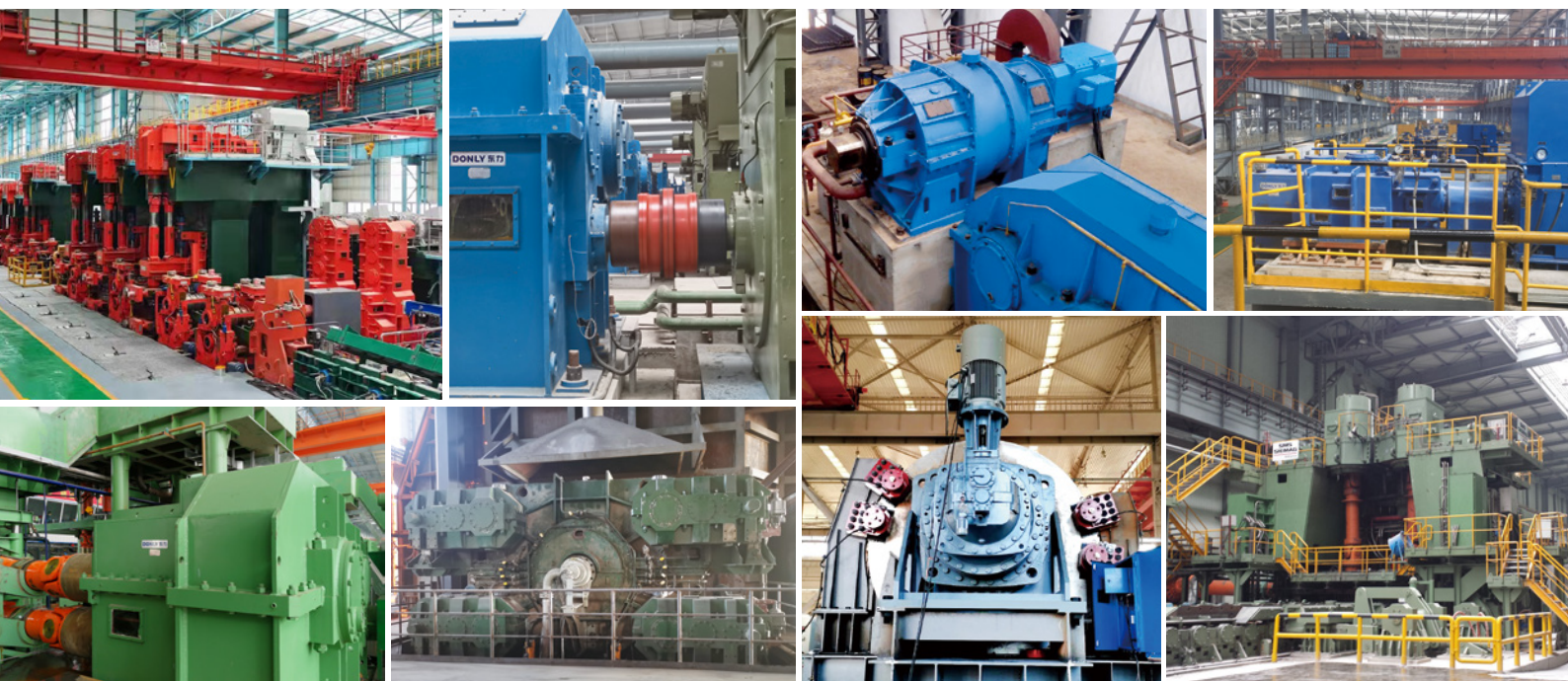
驱动无限可能

东力齿轮箱

重载工业齿轮箱

GEAR UNITS FOR HEAVY DUTY INDUSTRY

版本 Edition 2021



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棒线材轧机主传动联合齿轮箱

The Main Drive United Gear Units For Rolling Mill Of Wire And Rod



棒线材轧机主传动联合齿轮箱

The Main Drive United Gear Units For Rolling Mill Of Wire And Rod

1.1 产品特点

产品专为轧钢厂棒线材、型钢等生产线轧机传动而设计。

两输出轴通过万向联轴器与轧机轧辊联接，驱动轧机的轧辊工作。输出轴有空心轴和实心轴两种结构。

该类齿轮箱结构紧凑、重量轻、体积小，承载能力高、低噪声、低振动。

振动检测和温度检测。

齿轮材料采用优质低碳合金钢，渗碳淬火，齿面硬度 HRC57+4，轮齿采用齿形、齿向修形。齿轮精度等级 5-6 级 (GB10095-2001)。

常用规格采用系列化设计，同一规格齿轮箱内部齿轮采用模块化设计，备件数量少。箱体有水平剖分式和立式剖分式结构两种，维修制造方便，外观美观；箱体采用焊接箱体，焊后进行退火处理，粗加工后进行时效处理，箱体应力消除彻底，长期使用不易变形。

齿轮箱润滑采用强制喷油方式，润滑管路可布置在齿轮箱内部或外部，可以实现对齿轮、轴承的充分润滑。齿轮箱上均设有进油和回油接口，在主进油管上设有压力开关、流量监控器以及调节流量的截止阀等控制元件。通过它们可以对齿轮箱的供油状况进行全程监控，并向主控制系统反馈润滑系统压力和流量的开关量或模拟量信号。

1.2 主要技术参数

轧辊名义直径: $\Phi 350 \sim \Phi 850 \text{mm}$

输入转速: $\leq 1500 \text{rpm}$

传动比: 1~120

轧制力矩: 10~1200kNm

1.1 Product features

Special design for driving rolling mill in rolling factory which manufactures wire and rod.

The two output shafts join the rolling mill with universal coupling, driving the roller of the rolling mill. The output shaft has two structures: one is hollow, the other is solid.

The gear unit has compact structure, light weight, small volume, high ability of load, low noise and vibration.

The gear unit can monitor of temperature and vibration automatically.

The gear is manufactured by high-quality alloy steel with carburizing and quenching. The tooth surface hardness is HRC57+4. The gear is modified with gear profile and lead. The accuracy of gear can reach grade 5-6 (GB10095-2001).

The commonly used specification is designed in series and the gear in gear unit is designed in modularization. So the amount of spare part is few. The case's structural style has horizontal and vertical split structure, which is maintained conveniently and fine appearance. The case is welded manufactured which is annealed after welding. The case will be dealt with aging treatment in order to eliminate residual stress. So, the case deforms hardly.

The gear unit uses forced spray oil lubrication, the lubrication pipelines is distributed in or out of the gear unit, which can lubricate the gear and bearing sufficiently. The oil inlet and the oil discharge mouth are mounted on the gear unit. The pressure switch, the flux monitor and the cut-off valve are mounted near the oil inlet. The pressure switch and the flux monitor can monitor the oil supply and feed back the pressure and flux signal which is switch quantity or analog quantity to primary control system.

1.2 Technical data

Nominal diameter of roller: $\Phi 350 \sim \Phi 850 \text{mm}$

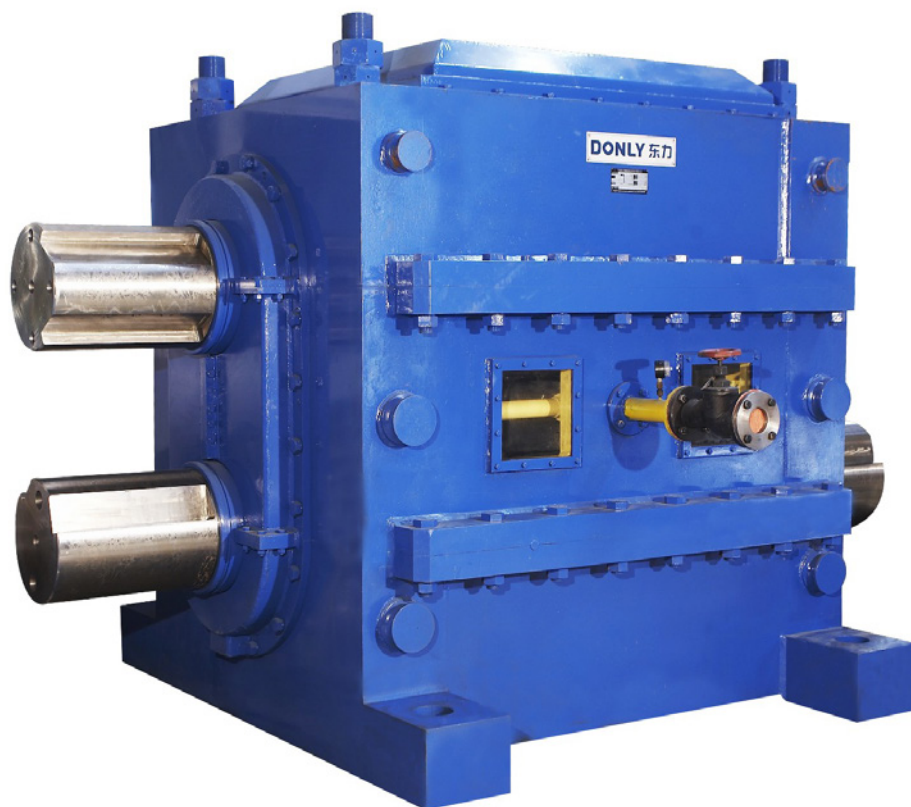
Input speed: $\leq 1500 \text{rpm}$

Ratio: 1~120

Torque of rolling: 10~1200kNm

人字齿轮机座

Double Helical Gear Units



人字齿轮机座

Double Helical Gear Units

2.1 产品特点

适用于冶金行业、棒材、板材等项目，其具有刚性好、抗冲击能力强，传递扭矩大、可频繁正反转等特性。

齿轮机座工作温度为 $-40^{\circ}\text{C} \sim +45^{\circ}\text{C}$ 。当工作温度低于 8°C 时，需增设加热装置，高于 35°C 时需增设冷却装置。

该类产品结构紧凑、重量轻、体积小，承载能力高、低噪声、低振动。

产品可自动实现振动检测和温度检测。

齿轮材料采用优质低碳合金钢，渗碳淬火，齿面硬度 HRC57+4，轮齿采用齿形、齿向修形。齿轮精度等级 5~6 级 (GB10095-2001)。

箱体采用水平剖分式结构，箱体间采用高强度螺栓把合，维修制造方便，外观美观；箱体采用焊接箱体，焊后进行退火处理，粗加工后进行时效处理，箱体应力消除彻底，长期使用不易变形。

产品采用机械密封，密封效果好，密封结构可靠、免维护。

齿轮箱润滑采用强制喷油方式，润滑管路可布置在齿轮箱内部或外部，可以实现对齿轮、轴承的充分润滑。齿轮箱上均设有进油和回油接口，在主进油管上设有压力开关、流量监控器以及调节流量的截止阀等控制元件。通过它们可以对齿轮箱的供油状况进行全程监控，并向主控制系统反馈润滑系统压力和流量的开关量或模拟量信号。

2.1 Product features

It's suitable for industry of metallurgy, extracting sugar, rubber and so on, which has high rigidity; resistance to impact, transmitting large torque and two-way work frequently.

The working temperature of the gear unit ranges from -40°C to 45°C . When the ambient temperature is lower than 8°C , preheating the lubrication before operating. When the ambient temperature around is above 35°C , cooling system should be added.

The gear unit has compact structure, light weight, small volume, high ability of load, low noise and vibration.

The gear unit can achieve test of temperature and vibration automatically.

The gear is manufactured by high-quality alloy steel with carburizing and quenching. The tooth surface hardness is HRC57+4. The gear is modified with gear profile and lead. The accuracy of gear can reach grade 5-6 (GB10095-2001).

The case's structural style is vertical split structure which is combined with high intensity bolt, which is manufactured conveniently and fine appearance. The case is welded manufactured which is annealed after welding. The case will be dealt with aging treatment in order to eliminate residual stress. So, the case deforms hardly.

The gear unit adopts mechanical sealing, which has good effect. It's sealing structure is reliable and non-maintaining.

The gear unit uses forced spray oil lubrication, the lubrication pipelines is distributed in or out of gear unit, which can lubrication the gear and bearing sufficiently. The oil inlet and the oil discharge mouth are mounted on the gear unit. The pressure switch, the flux monitor and the cut-off valve are mounted near the oil inlet. The pressure switch and the flux monitor can monitor the oil supply and feed back the pressure and flux signal which is switch quantity or analog quantity to primary control system.

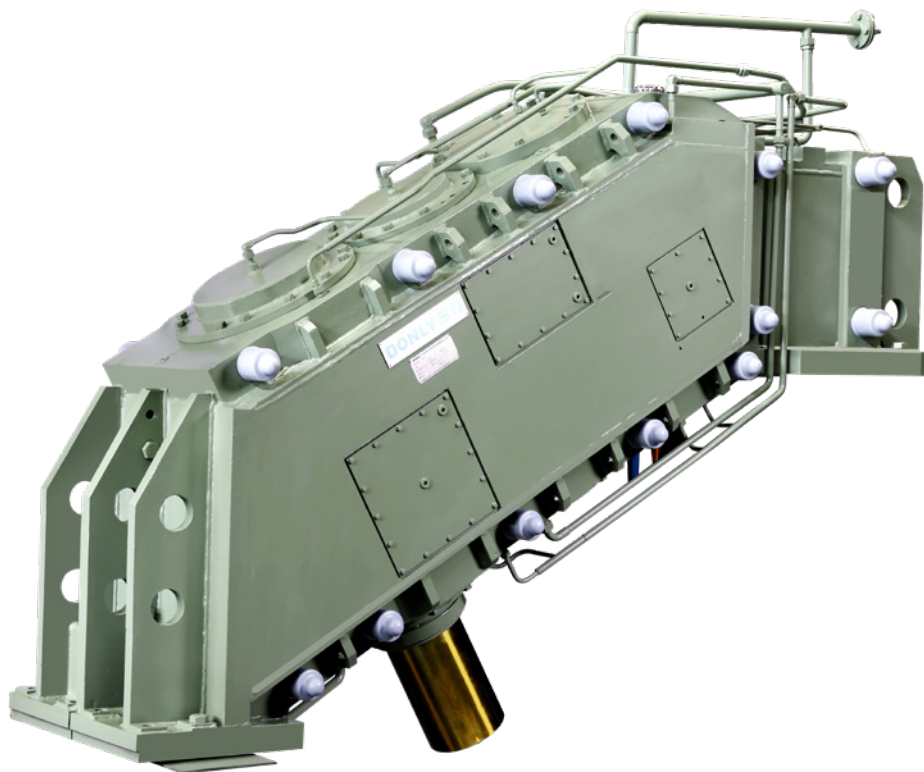
2.2 主要技术参数

2.2 Technical data

型号 Model	输入转速 Input speed (rpm)	速比 Ratio	输入中心距 Output center distance (mm)	最大输出扭矩 Maximum output Torque (kNm)	进油口压力 Input oil pressure (MPa)	润滑油 Lubricants	润滑油量 Oil quantity (Umin)
CDRZ750	55-120	1	750	1050	0.1-0.3	L-CKD460 (GB/T5903)	160
CDRZ800	55-120		800	1120			200
CDRZ850	35-80		850	3275			200
CDRZ900	56-112		900	2110			200
CDRZ950	60-120		950	700			200
CDRZ1100	60-120		1100	875			230
CDRZ1300	50-100		1300	1300			250
CDRZ1400	50-120		1400	1340			250

连轧机

The Gear Housing For Continuous Pipe Rolling



连轧机

The Gear Housing For Continuous Pipe Rolling

3.1 产品特点

产品专为高效生产无缝钢管而设计。

该类产品结构紧凑、重量轻、体积小，承载能力高、低噪声、低振动。

产品可自动实现振动检测和温度检测。

齿轮材料采用优质低碳合金钢，渗碳淬火，齿面硬度 HRC57+4，轮齿采用齿形、齿向修形。齿轮精度等级 5~6 级 (GB10095-2001)。

箱体采用水平剖分式结构，箱体间采用高强度螺栓把合，维修制造方便，外观美观；箱体采用焊接箱体，焊后进行退火处理，粗加工后进行时效处理，箱体应力消除彻底，长期使用不易变形。

产品采用机械密封，密封效果好，密封结构可靠、免维护。

齿轮箱润滑采用强制喷油方式，润滑管路可布置在齿轮箱外部，可以实现对齿轮、轴承的充分润滑。齿轮箱上均设有进油和回油接口，在主进油管上设有压力开关、流量监控器以及调节流量的截止阀等控制元件。通过它们可以对齿轮箱的供油状况进行全程监控，并向主控制系统反馈润滑系统压力和流量的开关量或模拟量信号。

3.2 主要技术参数

输入转速: $\leq 1300\text{rpm}$

传动比: 4.688-13.684

最大输出力矩: 11-143 kNm

3.1 Product features

The products are exclusively designed for high-efficiency production of seamless steel tubes.

The gear unit features compact structure, light weight, small volume, high ability of load, low noise and vibration.

The gear unit can achieve test of temperature and vibration automatically.

The gear is manufactured by high-quality alloy steel with carburizing and quenching. The tooth surface hardness is HRC57+4. The gear is modified with gear profile and lead. The accuracy of gear can reach grade 5-6 (GB10095-2001).

The case's structural style is vertical split structure which is combined with high intensity bolt, which is manufactured conveniently and fine appearance. The case is welded manufactured which is annealed after welding. The case will be dealt with aging treatment in order to eliminate residual stress. So, the case deforms hardly.

The gear unit adopts mechanical sealing, which has good effect. It's sealing structure is reliable and non-maintaining.

The gear unit uses forced spray oil lubrication, the lubrication pipelines is distributed out of gear unit, which can lubrication the gear and bearing sufficiently. The oil inlet and the oil discharge mouth are mounted on the gear unit. The pressure switch, the flux monitor and the cut-off valve are mounted near the oil inlet. The pressure switch and the flux monitor can monitor the oil supply and feed back the pressure and flux signal which is switch quantity or analog quantity to primary control system.

3.2 Technical data

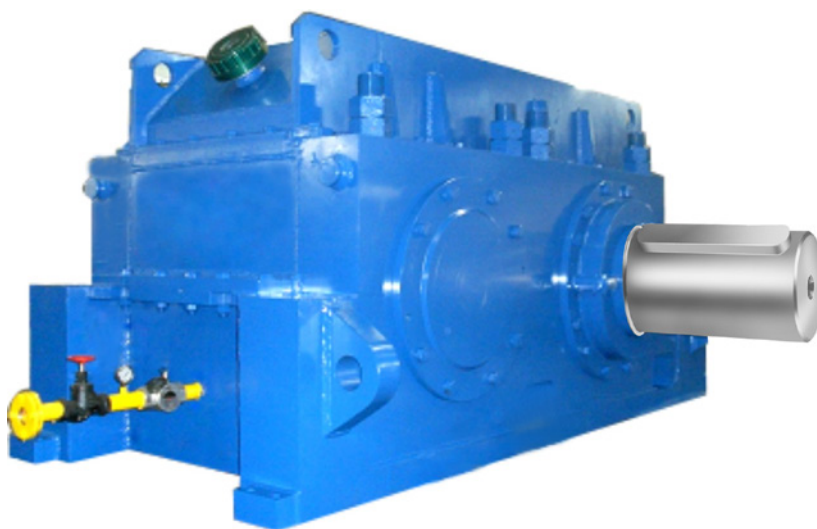
Input speed: $\leq 1300\text{rpm}$

Ratio: 4.688-13.684

Max output torque: 11-143 kNm

中厚板粗轧机主传动齿轮箱

The Main Gear Units For Rolling Mill Of Medium And Thick Plate



中厚板粗轧机主传动齿轮箱

The Main Gear Units For Rolling Mill Of Medium And Thick Plate

4.1 产品特点

产品为中厚板粗轧机主传动设计制造，也可适用宽厚板轧机主传动、冷轧薄板轧机主传动。其具有刚性好、抗冲击能力强，传递扭矩大、可频繁正反转等特性。

该类齿轮箱结构紧凑、重量轻、体积小、承载能力高、低噪声、低振动。

齿轮箱自动实现振动检测和温度检测。

齿轮材料采用优质低碳合金钢，渗碳淬火，齿面硬度 HRC57+4，轮齿采用齿形、齿向修形。齿轮精度等级 5~6 级（GB10005-2001）。

常用规格可实现系列化设计。

箱体采用水平剖分式，齿轮采用镶焊式结构，轴承设有偏心套装置，便于调整、维修，外观美观；箱体采用焊接箱体，焊后进行退火处理，粗加工后进行时效处理，箱体应力消除彻底，长期使用不易变形。

齿轮箱润滑采用强制喷油方式，润滑管路可布置在齿轮箱内部或外部，可以实现对齿轮、轴承的充分润滑，齿轮箱上均设有进油和回油接口，在主进油管上设有压力开关、流量监控器以及调节流量的截止阀等控制元件。通过它们可以对齿轮箱的供油状况进行全程监控，并向主控制系统反馈润滑系统压力和流量的开关量或模拟量信号。

4.2 主要技术参数

钢板宽度：2800mm
型号：CSY1300
电机功率：3200kW
输入转速：120~300rpm
传动比：1~5.95
润滑方式：强制润滑
润滑油流量：160L/min
润滑油牌号：L-CKD320（一等品）GB5903

4.1 Product features

The equipment is designed for the main gear unit of the roughly cut deal rolling mill, which also used for the main gear unit of the width-thickness plate rolling mill and the flat cold-rolled sheets gear unit. It has good characteristics such as rigidity, resistance to impact and can transmit great torque, run reversed etc.

The gear unit features compact structure, light weight, small volume, high ability of load, low noise and vibration.

The gear unit can achieve test of temperature and vibration automatically.

The gear is manufactured by high-quality alloy steel with carburizing and quenching. The tooth surface hardness is HRC57+4. The gear is modified with gear profile and lead. The accuracy of gear can reach grade 5-6 (GB10095-2001).

The achievable commonly used is designed in series

The cage's structural style is horizontal, the gear is weld structure and placing eccentric sleeve on them which is manufactured conveniently and fine appearance. The case is welded manufactured which is annealed after welding. The case will be dealt with aging treatment in order to eliminate residual stress. So, the case deforms hardly.

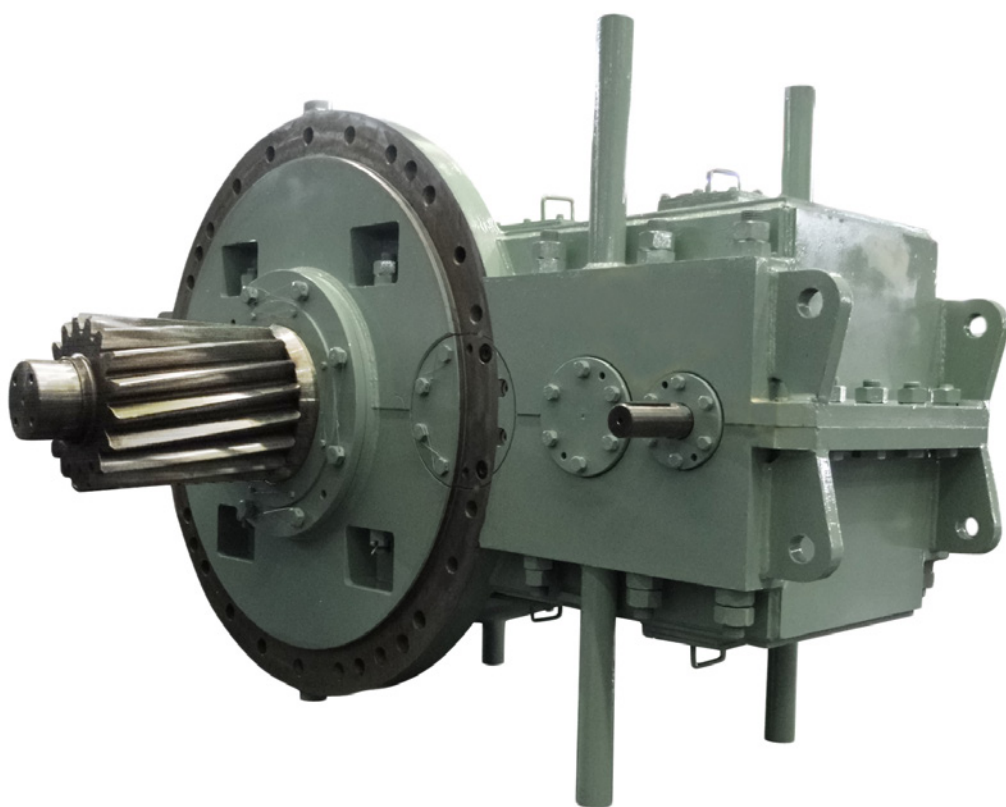
The gear unit uses forced spray oil lubrication, the lubrication pipelines is distributed in or out of the gear unit, which can lubricate the gear and bearing sufficiently. The oil inlet and the oil discharge mouth are mounted on the gear unit. The pressure switch, the flux monitor and the cut-off valve are mounted near the oil inlet. The pressure switch and the flux monitor can monitor the oil supply and feed back the pressure and flux signal which is switch quantity or analog quantity to primary control system.

4.2 Technical data

The width of the steel plate: 2800mm
Type: CSY1300
Power: 3200kW
Input speed: 120~300rpm
Ratio: 1~5.95
Lubrication: the forced
Oil quantity: 160L/min
Brand of the oil: L-CKD320 (first level) GB5903

氧气转炉用全悬挂倾动装置 DLPGCO 一次齿轮箱

DLPGCO Primary Gear Units For Converter Tilting Device



氧气转炉用全悬挂倾动装置 DLPGCO 一次齿轮箱

DLPGCO Primary Gear Units For Coverter Tilting Device

5.1 产品特点

产品专为氧气转炉用全悬挂倾动装置配套的齿轮箱。

齿轮箱是三级平行轴圆柱齿轮齿轮箱,分为中硬齿面和硬齿面两种。

中硬齿面齿轮材料采用优质合金钢,进行调质处理,硬度 HBS269~321,齿轮精度为 7 级 (GB10095-2001)。硬齿面齿轮材料采用优质低碳合金钢,渗碳淬火,齿面硬度 HRC57~61,轮齿采用齿形、齿向修形。齿轮精度等级 5~6 级 (GB10095-2001)。

该齿轮箱具有结构整齐紧凑,可设置更多的啮合点,适用于端部传动的各种倾动设备,齿轮箱悬挂在倾动设备上,通过末级输出轴上的小齿轮传递动力,通过齿轮箱法兰及定位止口实现与二次齿轮箱定位和连接,特别适用于大型炼钢转炉的倾动。

当工作环境温度低于 0℃时,起动前润滑油必须加热到 0℃以上。当工作环境温度高于 +45℃,必须采取隔热和冷却措施。

箱体为水平剖分式结构,维修制造方便,外观美观;箱体采用焊接箱体,焊后进行退火处理,粗加工后进行时效处理,箱体应力消除彻底,长期使用不易变形。

齿轮箱润滑采用飞溅润滑方式。

5.2 主要技术参数

转炉规格: 80 吨~200 吨

输入转速: $\leq 1500\text{rpm}$

传动比: 90~125

最大输出扭矩: 90~350kNm

齿轮箱工作环境温度为: $-45^{\circ}\text{C} \sim +45^{\circ}\text{C}$

工作方向: 可正反双向运转

5.1 Product features

The product is specially designed for hanging oxygen converter tilting device.

The gear unit is parallel cylindrical gearing of three stages, which has hardened tooth and soft tooth.

The gear is manufactured by high-quality alloy steel with carburizing and quenching. The tooth surface hardness is HBS269-321. The accuracy of gear can reach grade 7(GB10095-2001). The gear is manufactured by high-quality alloy steel with carburizing and quenching. The tooth surface hardness is HRC57-61. The gear is modified with gear profile and lead. The accuracy of gear can reach grade 5-6 (GB10095-2001).

The gear unit's structure is compact which has more meshing points. It can be used for variable tilting device of end drive, which is mounted on the tilting equipment which transmit power by output shaft. It is combined with secondary gear unit by flange and spigot, especially for turn-over of large steel-smelting converter.

When environment temperature is below 0°C , the oil must be heated and when the environment temperature is higher than 45°C , the cooler is necessary.

The housing is adopting horizontal and split structure which is easily manufactured and maintained, good appearance as well. The housing is welded manufactured which is annealed after welding. The case will be dealt with aging treatment in order to eliminate residual stress after rough machining. So, the case deforms hardly.

The gear unit adopts splash lubrication.

5.2 Technical data

Type: 80 ton-200 ton

Input speed: $\leq 1500\text{rpm}$

Ratio: 90~125

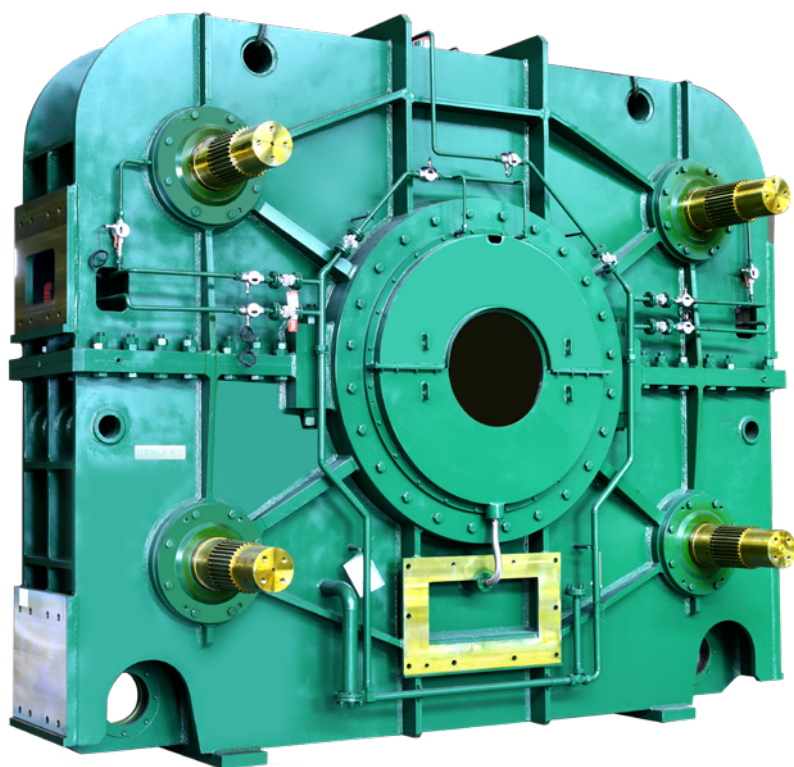
Max output torque: 90-350kNm

Ambient temperature: $-45^{\circ}\text{C} \sim +45^{\circ}\text{C}$

Running direction: bi-directional

氧气转炉用全悬挂倾动装置 DLPGCO 二次齿轮箱

DLPGCO Secondary Gear Units For Converter Tilting Device



6.1 产品特点

产品专为氧气转炉用全悬挂倾动装置配套的齿轮箱。

齿轮箱是单焊接圆柱齿轮齿轮箱，与四台一次齿轮箱进行周边驱动。焊接大齿轮为中硬齿面。

中硬齿面齿轮材料采用优质合金钢，进行调质处理，硬度 HBS269~321，齿轮精度为 7 级 (GB10095-2001)。

该齿轮箱具有安装维护方便，特别适用于大型炼钢转炉的倾动。齿轮箱悬挂在承载主轴上，四台一次齿轮箱悬挂安装在二次齿轮箱上，电机悬挂在一次齿轮箱上传递动力。

当工作环境温度低于 0℃时，起动前润滑油必须加热到 0℃以上。当工作环境温度高于 +45℃，必须采取隔热和冷却措施。

箱体为水平剖分式结构，维修制造方便，外观美观；箱体采用焊接箱体，焊后进行退火处理，粗加工后进行时效处理，箱体应力消除彻底，长期使用不易变形。

齿轮箱润滑采用稀油强制润滑油润滑方式。

6.2 主要技术参数

转炉规格：80 吨 ~ 200 吨

输入转速：≤ 20rpm

传动比：5.773~9.059

齿轮箱工作环境温度为：-45℃ ~ +45℃

工作方向：可正反双向运转

6.1 Product features

The product is specially designed for hanging oxygen converter tilting device.

The gear unit is a single welding cylindrical gear gear unit, which is driven around with four primary gear units. Welded large gears are medium and hard tooth surfaces.

The gear is manufactured by high-quality alloy steel with carburizing and quenching. The tooth surface hardness is HBS269-321. The accuracy of gear can reach grade 7(GB10095-2001).

The gear unit has convenient installation and maintenance, and is especially suitable for large steel-making converters. The decelerator is suspended on the bearing spindle, and four primary decelerators are suspended. Installed on the secondary gear unit, the motor is suspended on the primary gear unit to transmit power.

When the working environment temperature is lower than 0℃, the lubricating oil must be heated to 0℃ before starting. Above. When the working environment temperature is higher than + 45℃, heat insulation and cooling measures must be taken.

The housing is adopting horizontal and split structure which is easily manufactured and maintained, good appearance as well. The housing is welded manufactured which is annealed after welding. The case will be dealt with aging treatment in order to eliminate residual stress after rough machining. So, the case deforms hardly.

The gear unit lubrication adopts thin oil forced lubrication method.

6.2 Technical data

Type: 80 ton-200 ton

Input speed: ≤20rpm

Ratio: 5.773~ 9.059

Ambient temperature: -45℃ ~ +45℃

Running direction: bi-directional

穿孔机、轧管机齿轮箱

Gear Units For Tube Piercing And Mill



穿孔机、轧管机齿轮箱

Gear Units For Tube Piercing And Mill

7.1 产品特点

产品除适用于无缝钢管穿孔机、轧管机主传动外，还适用于矿山、冶金、水泥、能源、建材、起重运输等行业各类机械设备的传动。

该类齿轮箱结构紧凑、重量轻、体积小，输出轴可承受较大的轴向力，承载能力高、低噪声、低振动。

齿轮箱自动实现振动检测和温度检测。

齿轮材料采用优质低碳合金钢，轮齿采用齿形、齿向修形。齿轮精度等级 5~6 级 (GB10095-2001)

箱体采用水平剖分式结构，维修制造方便，外观美观；箱体采用焊接箱体，焊后进行退火处理，粗加工后进行时效处理，箱体应力消除彻底，长期使用不易变形。

齿轮箱润滑采用强制喷油方式，润滑管路可布置在齿轮箱内部或外部，可以实现对齿轮、轴承的充分润滑。齿轮箱上均设有进油和回油接口，在主进油管上设有压力开关、流量监控器以及调节流量的截止阀等控制元件。通过它们可以对齿轮箱的供油状况进行全程监控，并向主控制系统反馈润滑系统压力和流量的开关量或模拟量信号。

7.1 Product features

Besides suitable for solid drawn tube of puncher and main transmission of tube mill, it's also suitable for industry of mining , metallurgy, cement, energy, building materials, jack-up transport and so on .

The gear unit features compact structure, light weight, small volume, high ability of load, low noise and vibration . Besides, the output shaft has high capacity of load.

The gear unit can achieve test of temperature and vibration automatically.

The gear is manufactured by high-quality alloy steel with carburizing and quenching. The gear is modified with gear profile and lead. The accuracy of gear can reach grade 5-6 (GB10095-2001).

The housing is adopting horizontal and split structure which is easily manufactured and maintained, good appearance as well. The housing is welded manufactured which is annealed after welding. The case will be dealt with aging treatment in order to eliminate residual stress after rough machining. So, the case deforms hardly.

The gear unit uses forced spray oil lubrication, the lubrication pipelines is distributed in or out of the gear unit, which can lubricate the gear and bearing sufficiently. The oil inlet and the oil discharge mouth are mounted on the gear unit. The pressure switch , the flux monitor and the cut-off valve are mounted near the oil inlet. The pressure switch and the flux monitor can monitor the oil supply and feed back the pressure and flux signal which is switch quantity or analog quantity to primary control system.

7.2 主要技术参数

7.2 Technical data

型号 Model	钢管规格 Size of steel tube mm	电机功率 Power kW	电机额定转速 Rating speed of motor r/min	速比 Ratio	润滑方式 Lubrication	润滑油流量 Oil quantity L/min	进油口压力 Oil pressure of the inlet MPa
DLCDY1200	φ340	2*1400	450/750	5.21	强制润滑 compulsive	140	0.1~0.3
DLCDY950		2000	550/850	4.78		120	
DLCDY850	φ159	3800	445/742	4.95		120	
DLCDY800	φ219	1800	495	4.44		100	
DLCTY1400		2*2000	325	13.04		220	
DLCTY900	φ219	2800	744	6.42			
DLCTY860		1400	530	12.6		120	
DLCTY630	φ133	1600	740	6.4		120	

冷床本体横移、抬升齿轮箱

Gear Units For Transverse Shifting And Lifting Cooling Bed



冷床本体横移、抬升齿轮箱

Gear Units For Transverse Shifting And Lifting Cooling Bed

8.1 产品特点

产品为 4100mm、4300mm、5000mm、5500mm 宽厚板冷床横移、提升而设计，适用于冷床、热处理线的横移和提升装置。也适用于冶金、化工、矿山、电力等行业。

传动型式有两种，分别是：直交轴式和平行轴式。

该类齿轮箱结构紧凑、重量轻、体积小，承载能力高、低噪声、低振动。

齿轮箱自动实现振动检测和温度检测。

齿轮材料采用优质低碳合金钢，渗碳淬火，齿面硬度 HRC57+4，轮齿采用齿形、齿向修形。齿轮精度等级 5~6 级（GB10095-2001）

输出轴通过过盈通过联轴器或其他联接装置传递扭矩。

箱体采用水平剖分式结构，维修制造方便，外观美观；箱体采用焊接箱体，焊后进行退火处理，粗加工后进行时效处理，箱体应力消除彻底，长期使用不易变形。

齿轮箱润滑采用强制润滑和飞溅润滑两种方式，采用强制润滑时，产品单独配备了泵装置，齿轮箱箱体作为油箱，通过泵装置把润滑油输送到各润滑点，这种方式润滑可靠，适用于连续工作状态，润滑管路可布置在齿轮箱外部，可以实现对齿轮、轴承的充分润滑。齿轮箱上均设有进油和回油接口，在主进油管上设有压力表、各润滑点设有可调节、便于观察的流油指示器，通过它们可以对齿轮箱的供油状况进行全程监控。采用飞溅润滑时，齿轮箱通过齿轮甩起润滑油到各润滑点，达到润滑的目的，该润滑方式适用于工作机间歇式工作，缺点是：搅油损失较大，对于转速低时，润滑不充分。

8.1 Product features

The products are designed for the shifting and lifting cooling bed. The size of the heavy plate is 4100mm, 4300mm, 5000mm, 5500mm. Besides, it is also suitable for industry of metallurgy, chemical, mining, electric power and so on. There are two transmissions: rectangular axis and parallel axis.

They have two transmission types: right-angle and parallel axis.

The gear unit features compact structure, light weight, small volume, high ability of load, low noise and vibration.

The gear unit can achieve test of temperature and vibration automatically.

The gear is manufactured by high-quality alloy steel with carburizing and quenching. The tooth surface hardness is HRC57+4. The gear is modified with gear profile and lead. The accuracy of gear can reach grade 5-6 (GB10095-2001).

By means of interference link, the output shaft combined with coupling or other equipment to transmit torque.

The housing is adopting horizontal and split structure which is easily manufactured and maintained, good appearance as well. The housing is welded manufactured which is annealed after welding. The case will be dealt with aging treatment in order to eliminate residual stress after rough machining. So, the case deforms hardly.

The gear unit can use forced spray oil lubrication or splash lubrication. When adopts forced spray oil lubrication, the gear unit is equipped with pump-unit and the case is used as fuel tank. The pump-unit pumps the oil from the case to lubricate. This method is reliable for durable work condition. The pipeline is mounted on the gear unit, which can lubricate the gear and bearing sufficiently. The oil inlet and the oil discharge mouth are mounted on the gear unit. The pressure switch, the flux monitor and the cut-off valve are mounted near the oil inlet. The pressure switch and the flux monitor can monitor the oil supply and feed back the pressure and flux signal which is switch quantity or analog quantity to primary control system. When adopts splash lubrication which is achieved by the stir of gear. And this way is only suitable for intermittent work. The weakness is: stir loss is large and lubrication is not so sufficient when rotated speed is low.

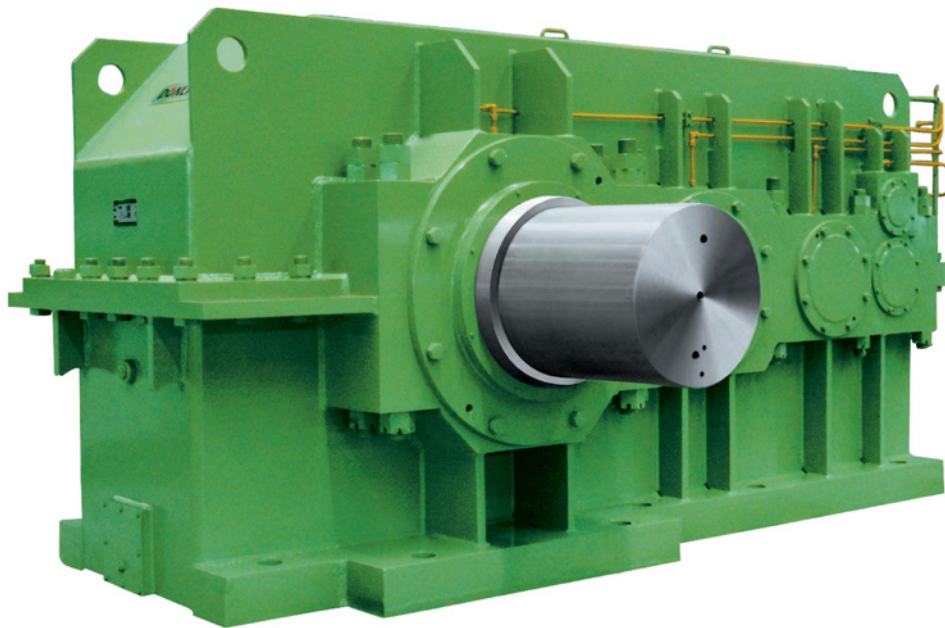
8.2 主要技术参数

8.2 Technical data

型号 Model	型号 Model	电机额定功率 Rated power of motor kW	额定转速 Rated speed r/min	速比 Ratio	最大输出扭矩 Max.output torque kNm	传动形式 Transmission way
冷床横移 Move	CBFY2730	220	750	100	420	四级直交轴传动 Four rectangular axis
	CFY1457	75	750	210	300	四级平行轴传动 Four parallel axis
冷床提升 Lift	CFY1980	150	750	224	642	四级平行轴传动 Four parallel axis
	CBFY2515	185	750	125	440	四级直交轴传动 Four rectangular axis
	CFY1980	280	750	140	748	四级平行轴传动 Four parallel axis
	CSY1980	470	750	90	810	三级平行轴传动 Three parallel axis

翻板机主传动齿轮箱

The Main Transmission For Plate Turn-Over



翻板机主传动齿轮箱

The Main Transmission For Plate Turn-Over

9.1 产品特点

产品除适用于宽厚板翻板机的主传动外，还适用于矿山、冶金、水泥、轻化、能源、建材、起重运输等行业各类机械设备。

该类齿轮箱结构紧凑、重量轻、体积小，输出轴可承受较大的径向力，承载能力高，低噪声、低振动。

齿轮材料采用优质低碳合金钢，轮齿采用齿形、齿向修形。齿轮精度等级 5-6 级（GB10095-2001）。

齿轮箱自动实现振动检测和温度检测。

箱体采用水平剖分式结构，维修制造方便，外观美观；箱体采用焊接箱体，焊后进行退火处理，粗加工后进行时效处理，箱体应力消除彻底，长期使用不易变形。

齿轮箱润滑可采用强制润滑和飞溅润滑两种方式，采用强制润滑时，产品配有泵装置，减速箱箱体作为油箱，泵装置从箱体中吸油对各润滑点进行强制喷油，在进油管上设有压力开关和流油指示器，对进油压力、流量进行监控。

9.2 主要技术参数

钢板宽度：3000~5500mm

输入转速：500~1500rpm

传动比：100~400

最大输出扭矩：1500kNm

9.1 Product features

Besides suitable for plate turn-over, it's also suitable for industry of mining, metallurgy, cement, energy, building materials, jack-up transport and so on.

The gear unit has compact structure, light weight, small volume, and high ability of load, low noise and vibration. Besides, the output shaft has high capacity of load.

The gear is manufactured by high-quality alloy steel with carburizing and quenching. The gear is modified with gear profile and lead. The accuracy of gear can reach grade 5-6 (GB10095-2001).

The gear unit can achieve test of temperature and vibration automatically.

The housing is adopting horizontal and split structure which is easily manufactured and maintained, good appearance as well. The housing is welded manufactured which is annealed after welding. The case will be dealt with aging treatment in order to eliminate residual stress after rough machining. So, the case deforms hardly.

The gear unit can use forced spray oil lubrication or splash lubrication. When adopts forced spray oil lubrication, the gear unit is equipped with pump-unit and the case is used as fuel tank. The pump-unit pumps the oil from the case to lubricate. The pressure switch, the flux monitor are mounted near the oil inlet, to monitor the oil supply and the pressure.

9.2 Technical data

The width of steel plate: 3000-5500mm

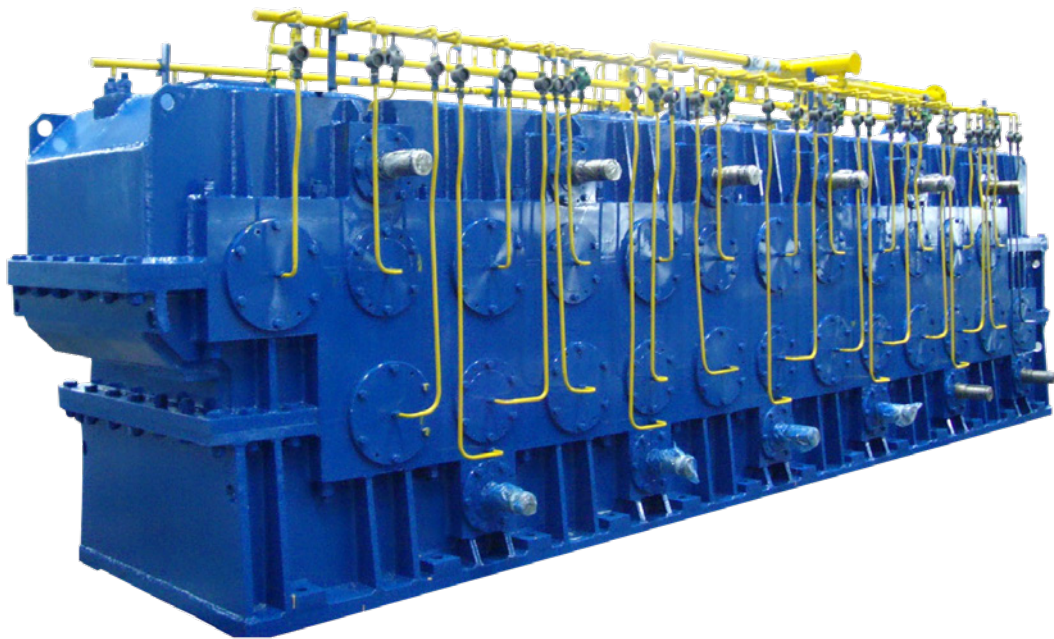
Input speed: 500~1500rpm

Ratio: 100~400

The maximum of output torque: 1500kNm

多机架定径机主传动齿轮箱

Main Gear Units For Multi-Stand Sizing Mill



多机架定径机主传动齿轮箱

Main Gear Units For Multi-Stand Sizing Mill

10.1 产品特点

产品专为轧钢厂无缝钢管生产线定径机主传动而设计。

该类齿轮箱根据机架数量的不同，由多组二级圆柱齿轮齿轮箱耦合而成的集群。该设备具有结构紧凑、重量轻、体积小，承载能力高、低噪声、低振动、运行平稳。

齿轮材料采用优质低碳合金钢，渗碳淬火，齿面硬度 HRC57 + 4，轮齿采用齿形、齿向修形。齿轮精度等级 5-6 级（GB10095-2001）。

箱体采用焊接箱体，焊后进行退火处理，粗加工后进行时效处理箱体应力消除彻底，长期使用不易变形。

齿轮箱润滑采用强制喷油方式，润滑管路可布置在齿轮箱内部或外部，可以实现对齿轮、轴承的充分润滑。齿轮箱上均设有进油和回油接口，在主进油管上设有压力开关、流量监控器以及调节流量的截止阀等控制元件。通过它们可以对齿轮箱的供油状况进行全程监控，并向主控制系统反馈润滑系统压力和流量的开关量或模拟量信号。

10.1 Product features

Special design for sizing mill used in the tube rolling mill plant.

According to the amount of the mills, this gear unit is coupled with several units of two-stage cylindrical gear. The gear unit features compact structure, light weight, small volume, high ability of load, low noise and vibration which also run steadily.

The gear is manufactured by high-quality alloy steel with carburizing and quenching. The tooth surface hardness is HRC57+4. The gear is modified with gear profile and lead. The accuracy of gear can reach grade 5-6 (GB10095-2001).

The case is welded manufactured which is annealed after welding. The case will be dealt with aging treatment in order to eliminate residual stress after rough machining. So, the case deforms hardly.

The gear unit uses forced spray oil lubrication, the lubrication pipelines is distributed in or out of the gear unit, which can lubricate the gear and bearing sufficiently. The oil inlet and the oil discharge mouth are mounted on the gear unit. The pressure switch; the flux monitor and the cut-off valve are mounted near the oil inlet. The pressure switch and the flux monitor can monitor the oil supply and feed back the pressure and flux signal which is switch quantity or analog quantity to primary control system.

10.2 主要技术参数

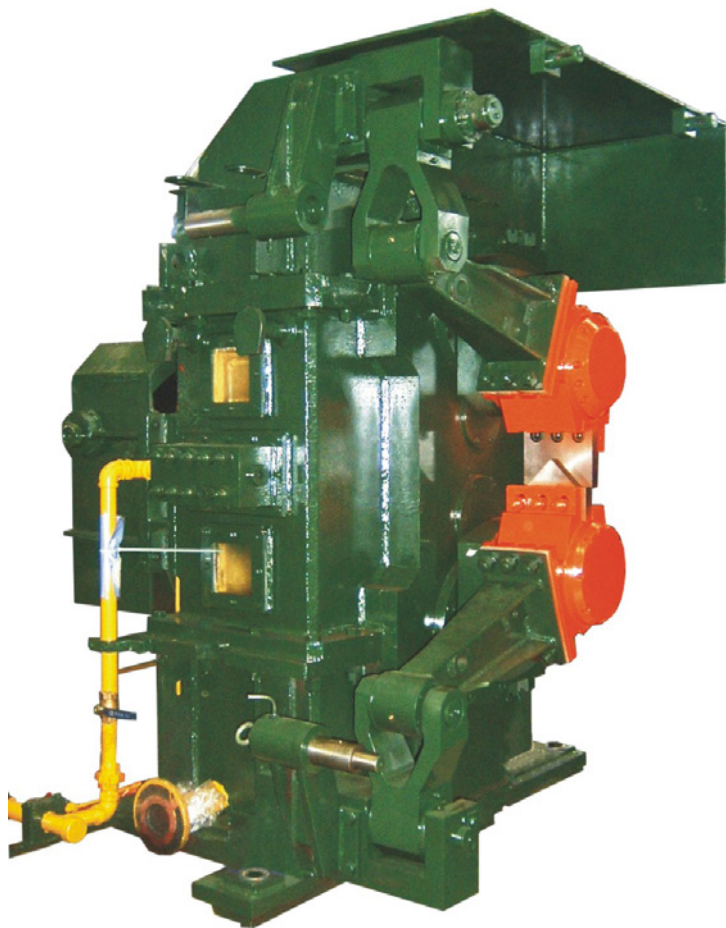
10.2 Technical data

设备名称 Name	电机输入功率 Input power kW	输入转速 Input speed r/min	传动比 Ratio	润滑油流量 Oil quantity L/min
二十机架定径机 主传动齿轮箱 Main transmission with twenty mills	300	800~1600	16.07~18.59	600~650
十四机架定径机 主传动齿轮箱 Main transmission with fourteen mills	132	1489~2600	5.66~11.13	400~450
十二机架定径机 主传动齿轮箱 Main transmission with twelve mills	200	750	22.38~17.06	600~700
十二机架定径机 主传动齿轮箱 Main transmission with twelve mills	147	800~1600	20	450~500
七机架定径机 主传动齿轮箱 Main transmission with seven mills	200	750~1900	22.5	350~400

DONLY

飞剪

Flying Shear



飞剪

Flying Shear

11.1 产品特点

适用棒、线、小型型钢生产线，1# 飞剪用于正常生产时对粗轧机组轧后轧件进行切头和切尾，事故时对轧件进行碎断。2# 飞剪用于正常生产时，对轧件进行切头、切尾，事故时对轧件进行分断或碎断。成品剪用于将轧件剪切成倍尺长度，剪切轧件材质：碳素结构钢、优质碳素结构钢、低合金钢；具有刚性好、抗冲击能力强，传递扭矩大、可频繁起制动等特性。

工作环境温度为 $-40^{\circ}\text{C} \sim +45^{\circ}\text{C}$ 。当工作润滑油温度低于 8°C 时需增设加热装置，高于 35°C 时需增设冷却装置。

该类产品结构紧凑、重量轻、体积小，承载能力高、低噪声、低振动。

产品可自动实现振动检测和温度检测。

齿轮材料采用优质低碳合金钢 20CrNi2MoA，渗碳淬火，齿面硬度 HRC57+4，轮齿采用齿形、齿向修形。齿轮精度等级 5 级 (G10095-2001)。剪刀材质：4Cr5WMoVSi。

箱体采用水平剖分式结构，箱体间采用高强度螺栓把合，维修制造方便，外观美观；箱体采用焊接箱体，焊后进行退火处理，粗加工后进行时效处理，箱体应力消除彻底，长期使用不易变形。

产品采用机械密封，密封效果好，密封结构可靠、免维护。

齿轮箱润滑采用强制喷油方式，润滑管路可布置在齿轮箱内部或外部，可以实现对齿轮、轴承的充分润滑，齿轮箱上均设有进油和回油接口，在主进油管上设有压力开关、流量监控器以及调节流量的截止阀等控制元件。通过它们可以对齿轮箱的供油状况进行全程监控，并向主控制系统反馈润滑系统压力和流量的开关量或模拟量信号。

11.1 Product features

It is suitable for manufacture of rod, wire and section rolling. 1#flying shear accomplished cutting the head and end of the rolling piece after rough rolling in usual, when accident occurs shattering the rolling piece; 2# flying shear accomplished cutting the head and end of the rolling piece after rough rolling in usual, when accident occurs, shattering or segmenting the rolling piece. Material of the rolling piece: carbon constructional steel, carbon constructional quality steel, low-alloy steel. It has good rigidity, resistance to impact, transmitting large torque and run-stop frequently.

The working temperature of the gear unit ranges from -40°C to 45°C . When the ambient temperature is lower than 8°C , preheating the lubrication before operating. When the ambient temperature around is above 35°C , cooling system should be added.

The gear unit has compact structure, light weight, small volume, and high ability of load, low noise and vibration.

The gear unit can achieve test of temperature and vibration automatically.

The gear is manufactured by high-quality alloy steel 20CrNi2MoA with carburizing and quenching. The tooth surface hardness is HRC57+4. The gear is modified with gear profile and lead. The accuracy of gear can reach grade 5 (GB10095-2001).The material of cutting edge: 4Cr5WMoVSi.

The housing is adopting horizontal and split structure which is easily manufactured and maintained, good appearance as well. The housing is welded manufactured which is annealed after welding. The case will be dealt with aging treatment in order to eliminate residual stress after rough machining. So, the case deforms hardly.

The gear unit adopts mechanical sealing, which has good effect. Let's sealing structure is reliable and non-maintaining.

The gear unit uses forced spray oil lubrication, the lubrication pipelines is distributed in or out of the gear unit, which can lubricate the gear and bearing sufficiently. The oil inlet and the oil discharge mouth are mounted on the gear unit. The pressure switch; the flux monitor and the cut-off valve are mounted near the oil inlet. The pressure switch and the flux monitor can monitor the oil supply and feed back the pressure and flux signal which is switch quantity or analogue quantity to primary control system.

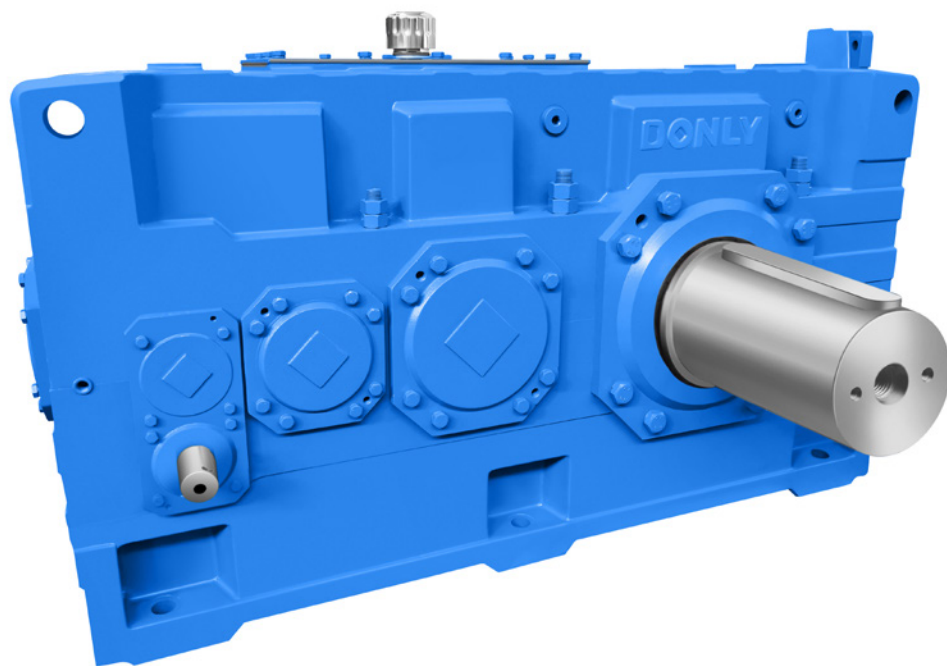
11.2 主要技术参数

11.2 Technical data

型号 Model	型式 Model	工作制 Work standard	最大剪切断面 Max. plane of shear mm^2	剪切温度 Shear temperature	轧件速度范围 Speed range of rolled piece m/s	切头长度 Length of crop end mm	事故碎断长度 Shear Length for accident mm
1# 飞剪 1# flying shear	曲柄剪 Crank	启 / 停 run/stop	10000	$\geq 900^{\circ}\text{C}$	0.2~2.1	≤ 200	≤ 800
2# 飞剪 2# flying shear	回转式 Rotary	启 / 停 run/stop	2800	$\geq 850^{\circ}\text{C}$	1.29~10	≤ 200	≤ 1500
成品剪 Flying shear for end product	组合式，曲柄 / 回转可变换 Combination (crank and rotation interchangeable)	启 / 停 run/stop	1900	$\geq 750^{\circ}\text{C}$	1.6~22		

启闭机齿轮箱

Hoist Gear Units



启闭机齿轮箱

Hoist Gear Units

12.1 产品特点

启闭机是水利工程建设的主要组成部分，也是确保水利工程安全的重要组成部分，齿轮箱作为动力源，要求必须具有高的可靠性和安全性。

该类齿轮箱承载力高，运转平稳，噪音低、使用寿命长且易于安装和维护。

齿轮材料采用优质低碳合金钢，渗碳淬火，齿面硬度 HRC57+4，齿轮采用齿形、齿向修形，齿轮精度等级 5~6 级 (GB/T10095-2001)。

齿轮箱采用飞溅润滑或强制润滑方式，润滑管路可布置在箱体内侧或外侧，实现对齿轮和轴承的充分润滑。

12.2 主要技术参数

启闭机齿轮箱工作级别：

1. 轻级工作制：运行时间短，间歇时间长。
2. 中级工作制：运行频繁。

提升承载能力：10kN~2900kN

输入转速：≤ 1500rpm

传动比：6.3~1000

润滑方式：飞溅或强制润滑

工作方向：正反双向运转

工作环境温度：-25~+40℃

12.1 Product features

Hoist is the main part of the construction of water conservancy projects, but also an important part of ensure the safety of water conservancy projects, gear unit as a power source, requirements must have high reliability and safety..

This type of gear unit has high bearing capacity, stable operation, low noise, long service life and easy to installation and maintenance.

The gear material is made of high quality alloy steel, which is carburized and hardened. The tooth surface hardness is HRC57+4. The gear is modified with gear profile and lead. The accuracy of gear can reach grade 5-6 (GB/ 10095-2001).

The gear unit adopts splash lubrication or forced lubrication, and the lubrication pipeline can be arranged inside or outside the box body to achieve full lubrication of gears and bearings.

12.2 Technical data

Hoist gear unit working level:

1. Light work system: short running time, long song time.
2. Intermediate work system: frequent operation.

Listing capacity: 10kN-2900kN

Input speed: ≤1500rpm

Ratio: 6.3-1000

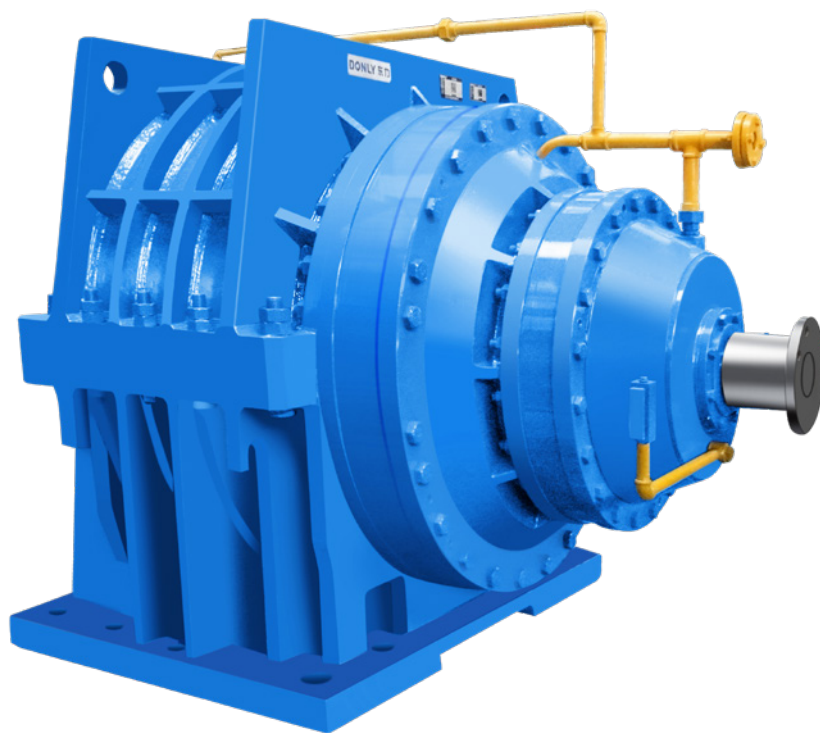
Lubrication: spatter or forced lubrication

Running direction: bi-directional

Ambient temperature: -25℃+40℃

榨糖机齿轮箱

Sugar Mill Gear Units



榨糖机齿轮箱

Sugar Mill Gear Units

13.1 产品特点

随着制糖产业结构调整，产能不断提升，齿轮箱作为榨糖机械的必要配套传动装置，主要采用齿轮传动齿轮箱，分中心驱动双分流齿轮箱和行星齿轮箱。

该类齿轮箱采用硬齿面材料，齿轮材料采用优质低碳合金钢，渗碳淬火，齿面硬度 HRC57+4, 齿轮采用齿形、齿向修形，齿轮精度等级 5~6 级（GB/T10095-2001）。

该类齿轮箱具有高性能，高效率，大功率和高扭矩，结构紧凑。

齿轮箱润滑采用浸油润滑或强制润滑方式。

13.2 主要技术参数

承载能力：22kN~2600kN

输入转速：≤ 1500rpm

传动比：25~280

润滑方式：浸油润滑或强制润滑

工作环境温度：-25~+40℃

13.1 Product features

With the adjustment of sugar industry structure and continuous production promotion, gear unit is playing as a necessary supporting transmission device of sugar mill machinery. The main gear unit is including, center drive double split gear unit and planetary gear unit.

The gear unit is made of hard tooth surface material, the gear material is made of high quality low carbon alloy steel, which is carburizing and quenching, the tooth surface hardness is HRC57+4. The gear is modified with gear profile and lead. The accuracy of gear can reach grade is 5-6 (GB/ 10095-2001).

This type of gear unit has high performance, high efficiency, high power and high torque, compact structure.

The gear unit is lubricated by immersion or forced lubrication

13.2 Technical data

Carrying capacity: 22kN-2600kN

Input speed: ≤1500rpm

Ratio: 25-280

Lubrication: oil immersion or forced lubrication

Ambient temperature: -25°C+40°C

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