

Welcome to

FEINNORD

-About Feinnord 关于菲诺德

FEINNORD is a European supplier in the industry of transmission solutions and process control. We offer gearboxes, couplings and mechanical seals and made-to-order products of a variety of industries and OEM clients. Starting from a mechanical plant located in Frankfurt/Main, we are now growing up an international supplier with affiliated locations in Southeast Asia and China and north America and southern America . We are dedicated to providing high-quality products and customised services to your valuable industries. FEINNORD 是一个来自欧洲在工业传动解决方案和过程控制方面的优秀供应商。我们提供齿轮箱，联轴器和机械密封；我们还提供基于不同的工业领域和OEM的需求定制的产品。起源于 Frankfurt/Main 的一个机械工厂，现在我们已经成为一个涉足中国和东南亚和北美南美的一个国际化供应商。我们竭诚为您提供高质量的产品和定制化的服务。

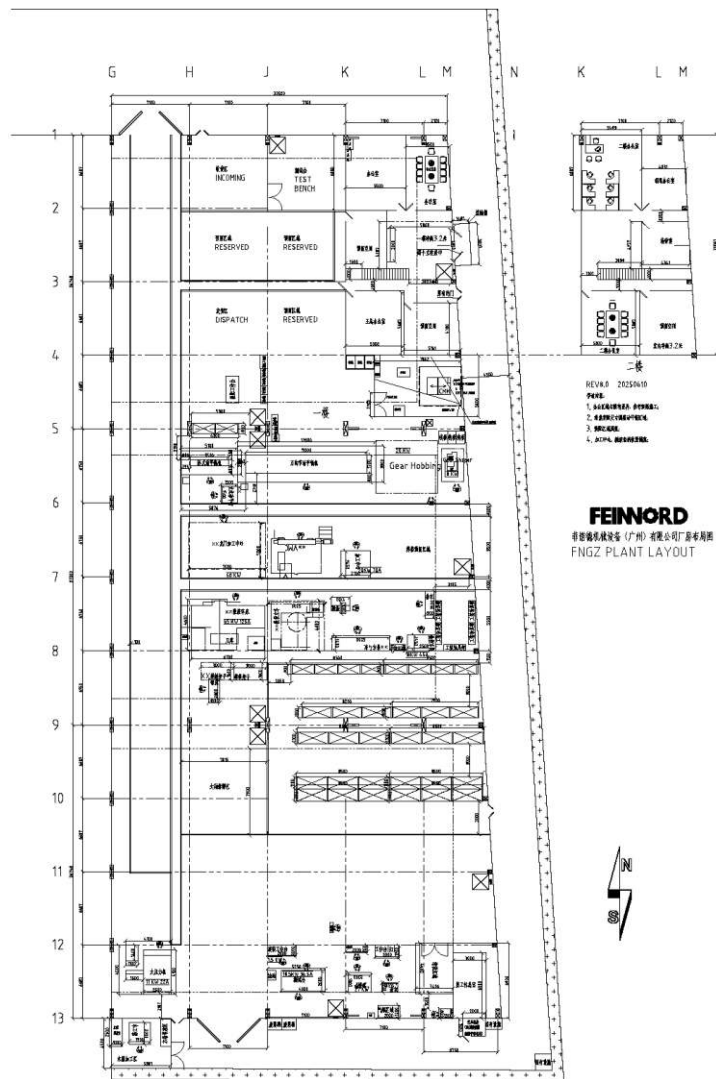


Contents

- Present 现在
- Products 产品
 - Z Series Gear Coupling Z系列鼓形齿联轴器
 - S Series Disc Coupling S系列膜片联轴器
 - B Series Resilient Coupling B系列弹性体联轴器
 - U Series Universal Coupling U系列万向节联轴器
 - A series Gear spindle A系列齿轮联轴器
 - Others 其他类型联轴器
- Repair & Service 维修业务
 - Gear Spindle Repair & Revamp 鼓形齿传动轴的维修和改造
 - U Joint in Steel Mill Repair 轧钢线万向节维修
 - Spares 备件



Present现在-Location场地

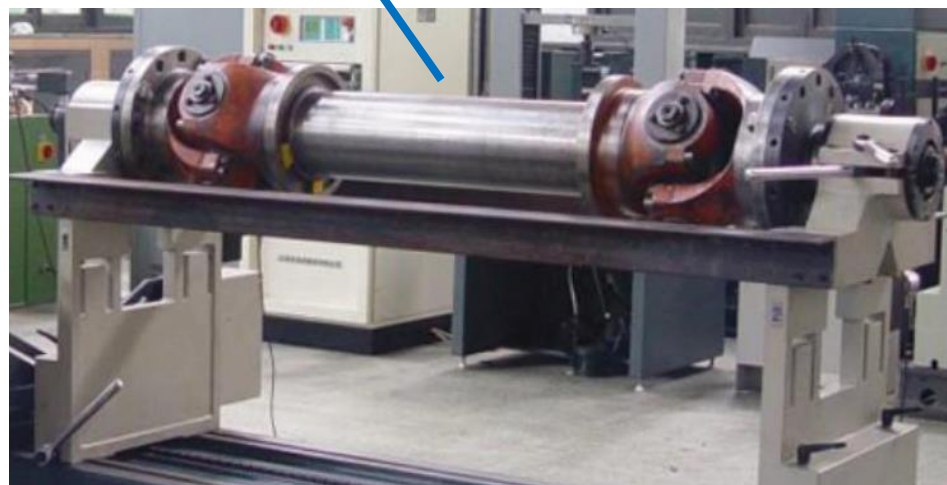
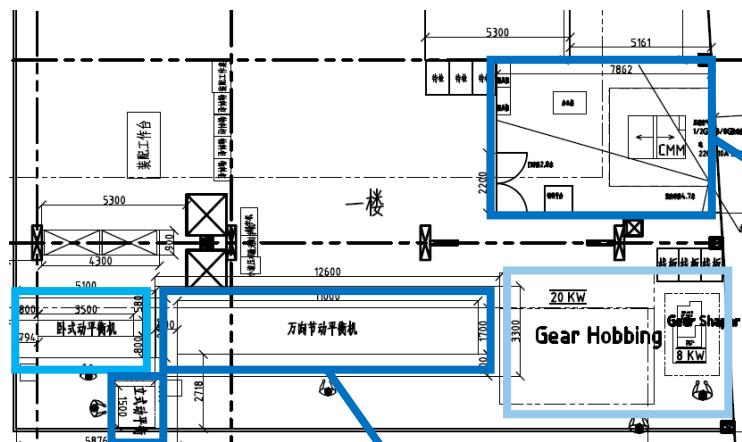


Manufacturing Area: ~2,700 Square Meters 制造区域约2700平方米

Office Area: ~400 Square Meters 办公室面积约400平方米



Present现在-Equipment 设备



model机型 U-JOINT Balance Machine

Speed range 测量范围 225-1280 rpm

Max. workpiece dimension 最大工件尺寸 $\phi 500 \times 8000$ mm

Max. load 最大承重 2000 Kg



model机型

ZEISS CMM SPECTRUM 12 verity

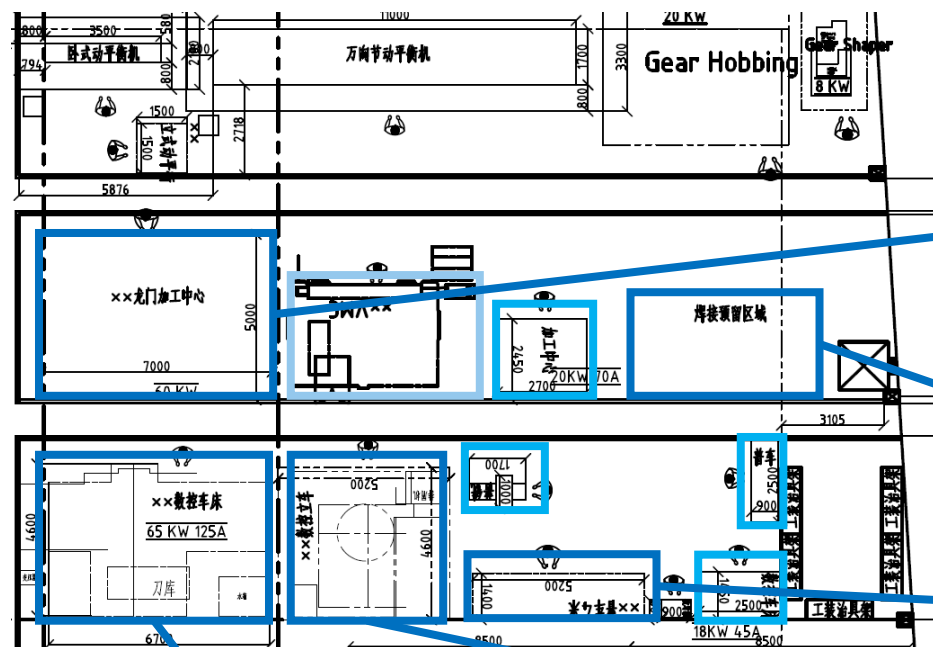
Measuring range 测量范围

X=900 Y=1200 Z=600

Max. workpiece dimension
最大工件尺寸

1027X1650X620

Present现在-Equipment 设备



龙门加工中心参数 Specification of Gantry Machining Center

1. 工作台 3000X2000 mm (Y向不能小于2000mm)
2. 行程 3200(X)X3200(Y)X1000(Z) mm (Y向不能小于2500mm)
3. 立柱之间距离 2500 mm (立柱之间距离不能小于2500mm)
4. 导轨类型 硬轨 (重载)
5. 刀柄规格 BT50
6. 主轴转速 40-3500 rpm (主轴转速不能低于3000rpm)
7. 工作台承重 7000 Kg
8. 控制系统 FANUC/MITSUBISHI/SIEMENS/广数
9. 提供完整的纸质操作指导书, 安装指导书。

Welding Machine for U-JOINT Manufacturing 万向节制造用焊接设备

普通卧车参数 Specification of Horizontal Conventional Lathe

1. C6160/C6260
2. 加工工件长度 4000 mm

数控卧车参数 Specification of Horizontal CNC Lathe

1. 回转直径 600 mm
2. 加工工件长度 1500 mm (不能小于1500mm)
3. 工件加工精度 IT6
4. 带尾座 MT5#
5. 12位刀塔
6. 提供完整的纸质操作指导书, 安装指导书。

数控立车参数 Specification of Vertical CNC Lathe

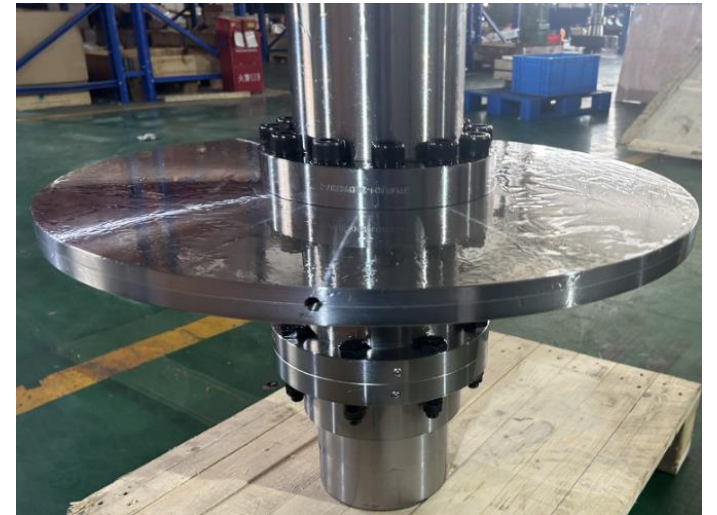
1. 床身结构: 重型切削
2. 最大旋转直径 2000 mm
3. 切削直径 2000 mm
4. 最大切削高度 1200 mm
5. 最大工件重量 8000 Kg
6. Z轴行程 900 mm
7. 控制系统 FANUC/MITSUBISHI/SIEMENS/广数
8. 提供完整的纸质操作指导书, 安装指导书。

Z Series Gear Coupling Z系列鼓形齿联轴器

Feinnord Z series gear couplings are frequently selected by steel industry and international OEMs due to their reputation for innovation, reliability, and problem solving. Numerous styles and sizes are available, including engineered-to-order designs developed in close collaboration with customers

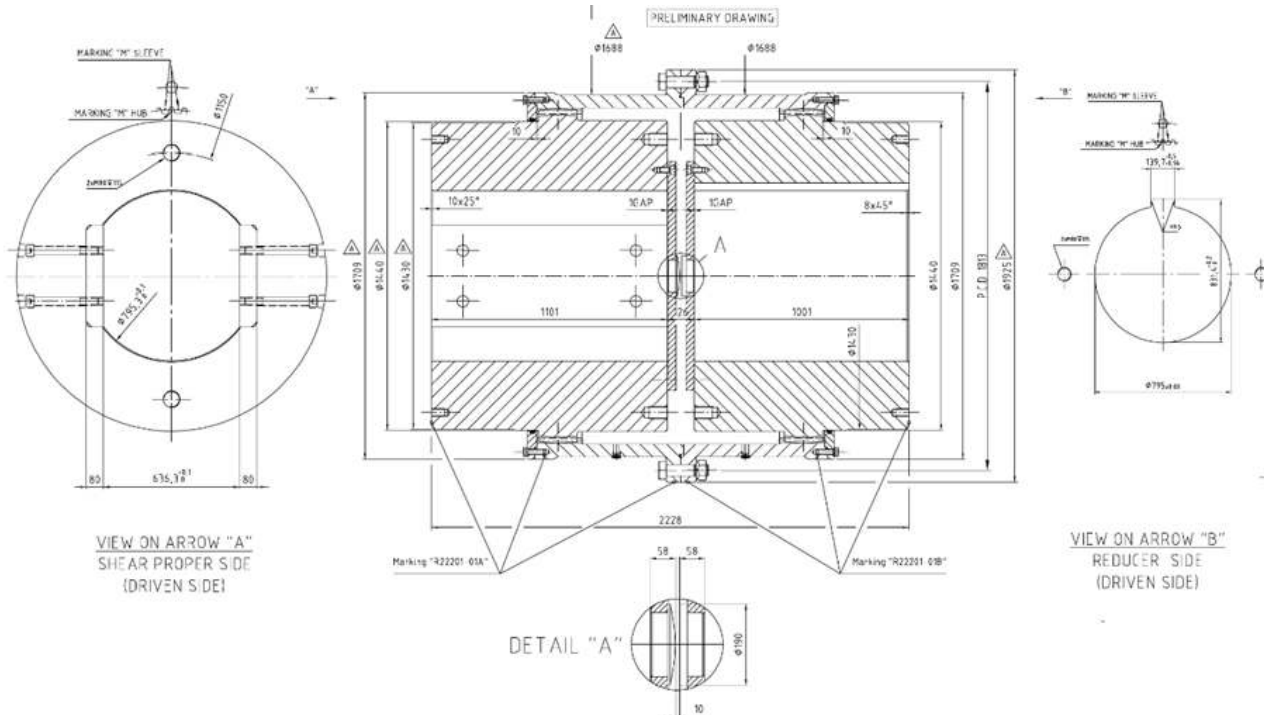
- Torque transmitted through intermeshing internal (sleeve) and external (hub) gearing
通过内齿件（SLEEVE）和外齿件（HUB）的啮合来传递扭矩
- One-to-one tooth relationship - same teeth always in contact between hub and sleeve
One-to-one齿形-一直都是同一对齿啮合
- Advantages 优点
 - Provides large misalignment - including axial - by clearances (backlash) in gear teeth
大的不对中容纳能力-包括轴向-通过齿形间隙来实现
 - Very power dense 高能量密度
 - Economical 经济
 - High torsional stiffness 高扭转刚度
- Disadvantages 缺点
 - Wearing parts - relative motion (sliding) between gear teeth requires routine maintenance (lubrication)
易损件-齿形之间相对的运动（滑动）需要定期的维护（润滑）

Z Series Gear Coupling Z系列鼓形齿联轴器



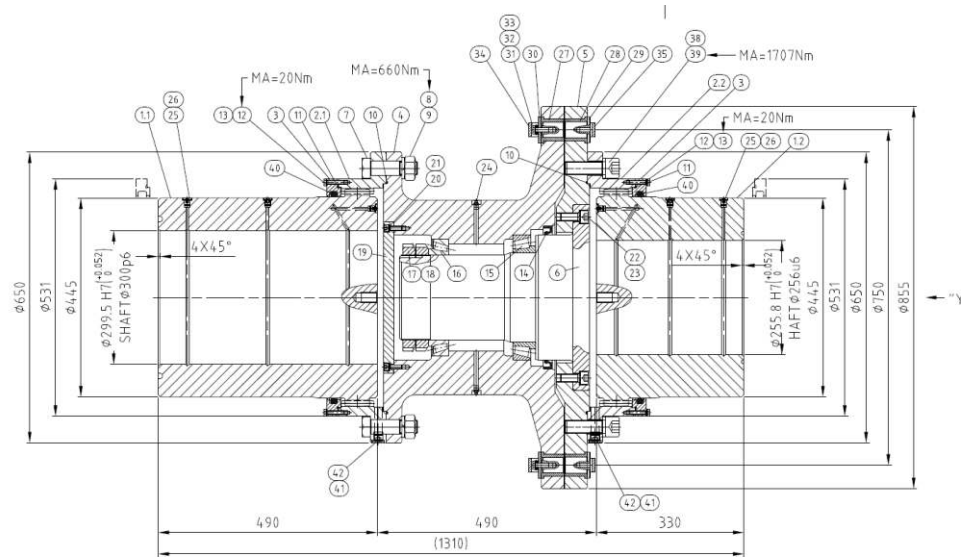
Application-steel industry

ZGG-1700 Gear coupling used for Flying shears of 2050 hot strip mill line
Formosa Ha Tinh steel corporation



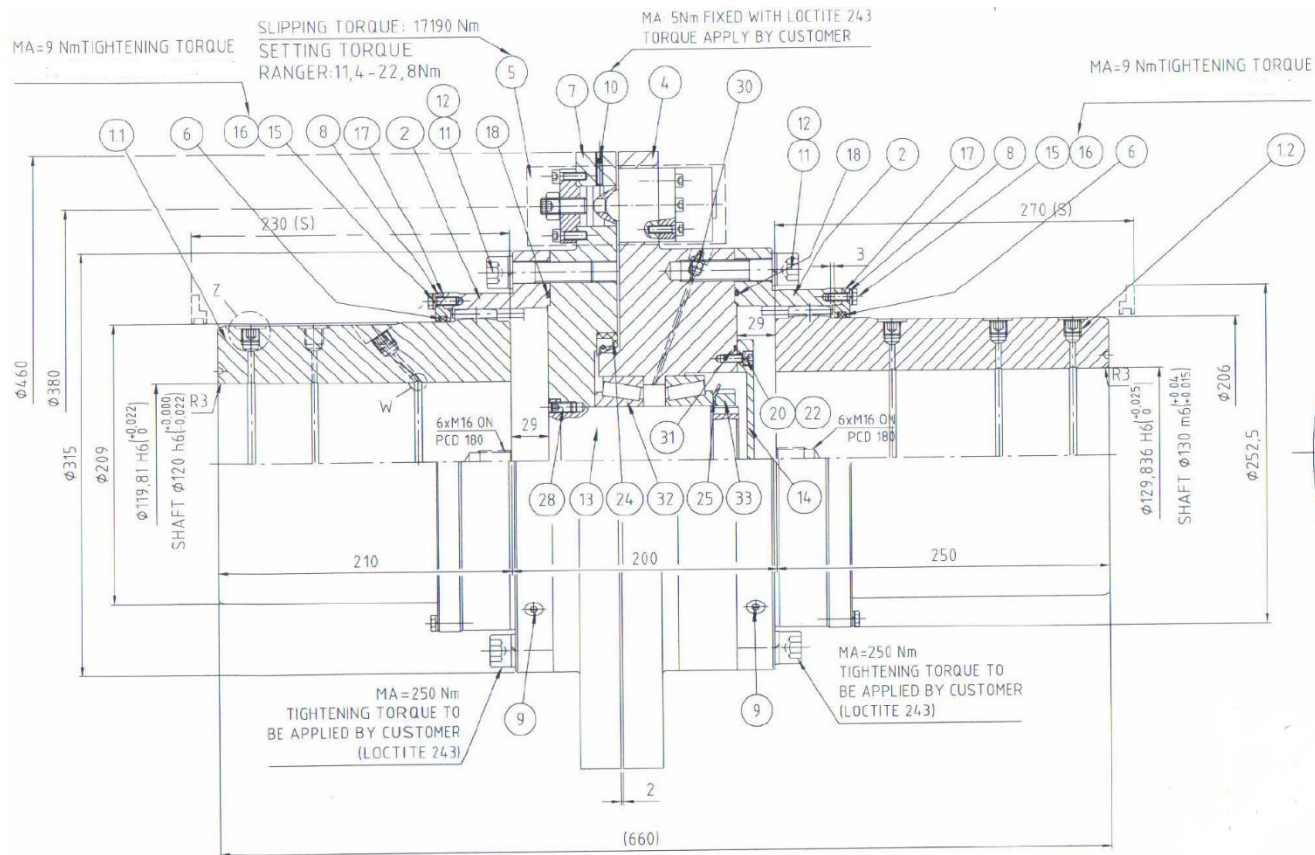
Application-steel industry

ZX03-300 Gear coupling used for main 2050 hot strip mill
Formosa Ha Tinh steel corporation



Application-steel industry

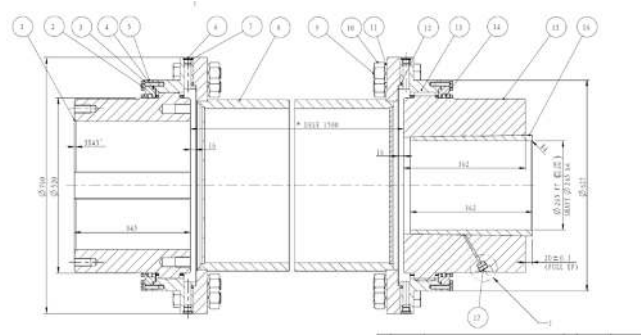
ZX06-60 Combination with Auto-reset Safety Element coupling used for pickling and coil-skin pass mill Line
Valin ArcelorMittal Automotive steel co., LTD



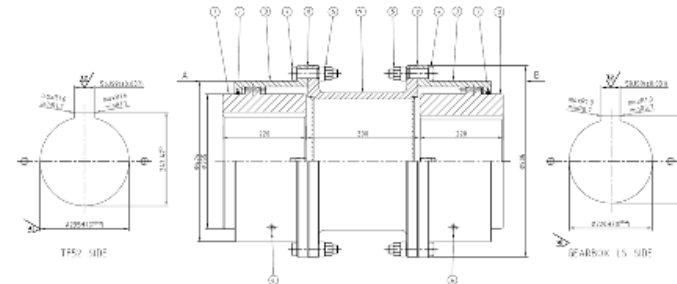
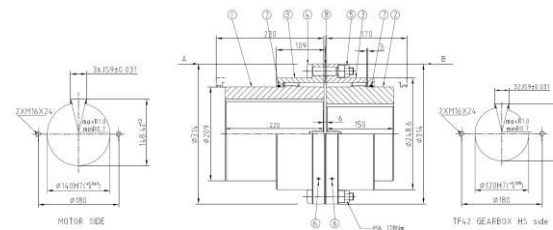
APPLICATION IN PAPER INDUSTRY 在造纸行业的应用

We have been selling so many couplings of pulp& fiber equipment for ANDRITZ since 2020。

FGCX-500 gear coupling used for ANDRITZ MSD500 Equipment- Yueyang paper company



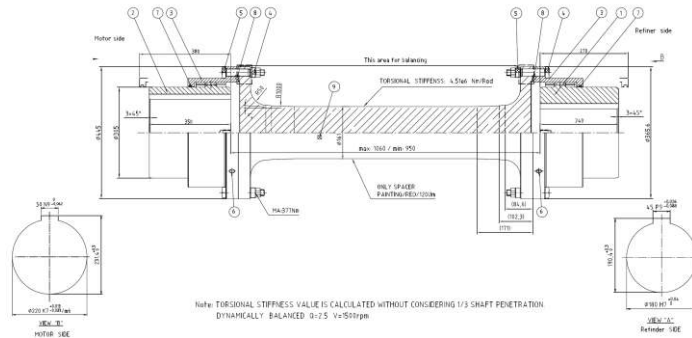
FG series coupling used for motor side and equipment side of ANDRITZ TF Series refiner



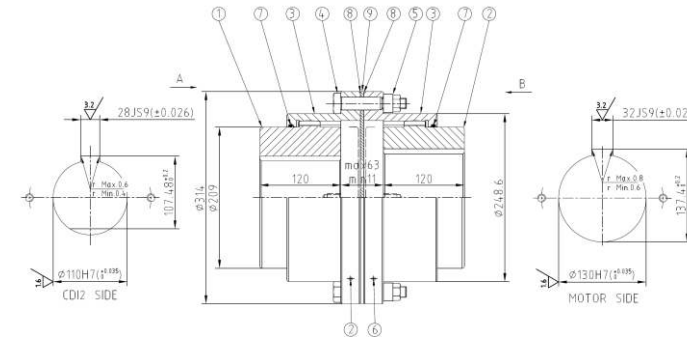
APPLICATION IN PAPER INDUSTRY 在造纸行业的应用

We have been selling so many couplings of pulp& fiber equipment for ANDRITZ since 2020。

FGX-60-YY gear coupling used for ANDRITZ SCP HC refiner



FGCO series coupling used for CDI Series equipment



S Series Disc Coupling S系列膜片联轴器

- Advantages 优点

- No Maintenance - No Lubrication 免维护-不需要润滑
- Designed for Infinite Life 永久使用设计
- Good Inherent Balance 优秀的固有平衡设计
- Zero Backlash 零侧隙
- High resistance to aggressive atmospheres 对腐蚀性气体抵抗能力好

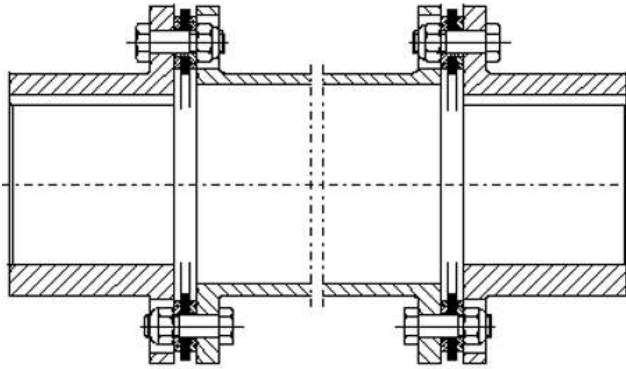
- Disadvantages 缺点

- Less Tolerant of Extreme Misalignment 不对中容纳能力不高
- Typically Larger Diameter Compared to Gear 相对于鼓形齿联轴器，尺寸较大
- Less Axial Float than Gear 轴向浮动能力比鼓形齿更差

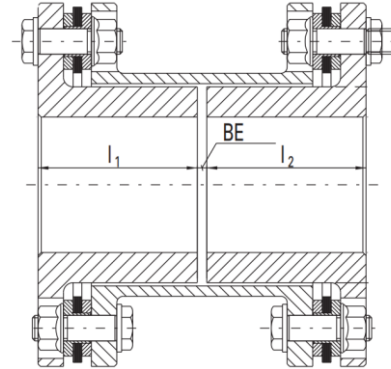


To improve on these disadvantages, various couplings manufacturers have modified the profile in many ways. Feinnord has accomplished a superior disc profile by using the more recent Finite Element Analysis. As a result of our development work, the S series disc pack has 6 Bolts, can operate at 1.5o angular misalignment 2 continuously without losing any torque capability, or in other words: impose smaller forces on the bearings for a given misalignment and transmit more torque than other competitive couplings .

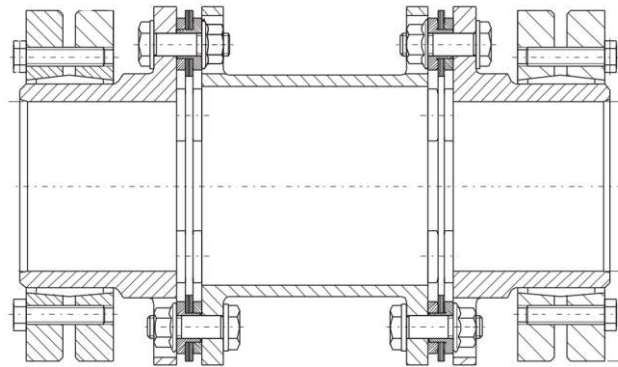
DISC Series 膜片联轴器



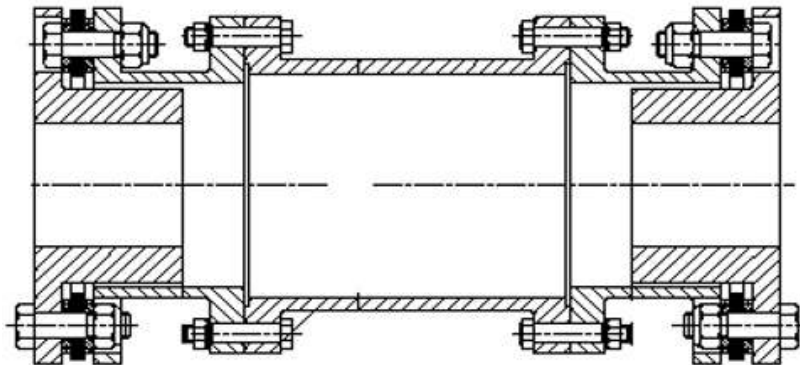
SSD-6 Types:
Standard
Configuration
with Variable BE



SDR-6 Types:
Close Coupled Configuration

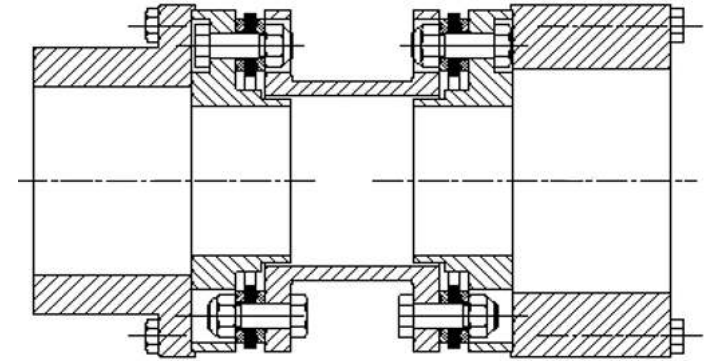


SSS-6 Type:
Shrink Disc Configuration with
Variable Distance
between Shaft Ends

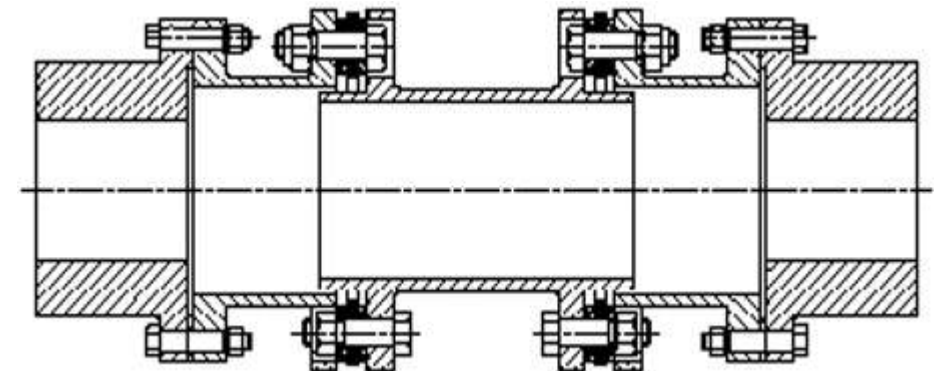


SRM-6 Type: Reduced
Moment Configuration
with Spacer according to
AGMA* 516

SAS-6 Type:
Drop-Out
Configuration
According to API* 610

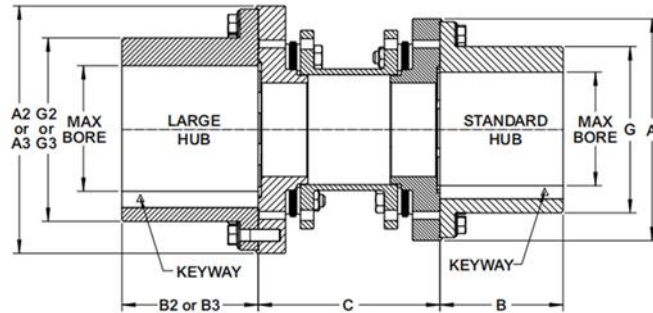


SSZ-6 Type: Drop-out Configuration
with Floating Assembly



Application-Oil gas & Chemical

DOX-256-6 used for gas compressor-
BP, Mobil

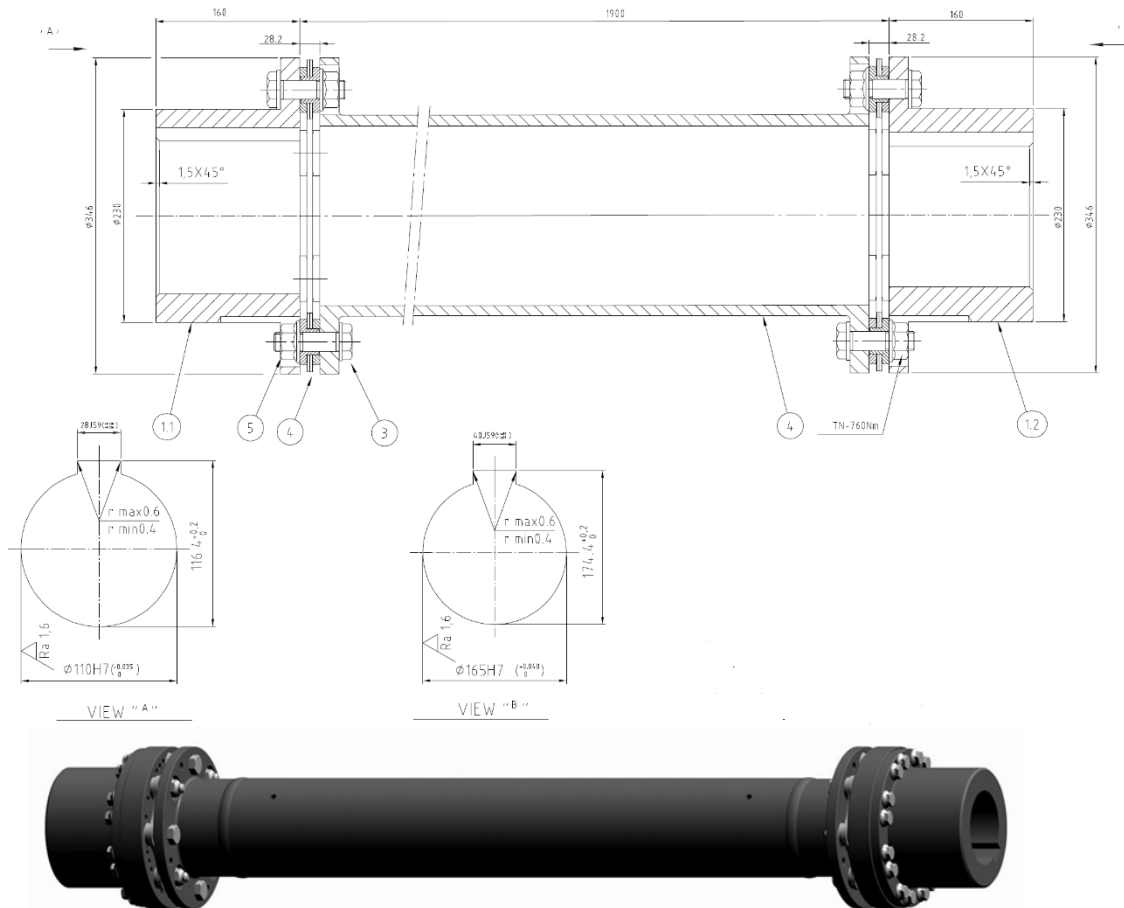


The internationally most renowned industry sectors, for example the plastics, automotive, mechanical engineering and food industry, are strongly dependent on oil & gas and chemical supplier materials. Accordingly, the oil & gas and chemical industry plays a key role, its top priorities being to avoid cost and supply-critical downtimes, attain maximum process efficiency as well as maintain the strictest safety standards. As system partner, Feinnord supports users from the oil & gas and chemical sector all around the world with drive and damping components, meeting highest functional and resistance standards in environments of extreme temperatures, heavy dirt and pressure as well as aggressive substances. Whether the customer requires compressors, agitators, pumps or fans, whether highly specific individual or intelligent system solutions are requested – Feinnord offers perfectly suited couplings, locking devices and driven components and diverse requirements of the industry sector, and coupling meet API 610 design, depending on the application, also based on special materials and specific production processes.



Application-Oil gas & Chemical

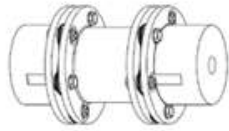
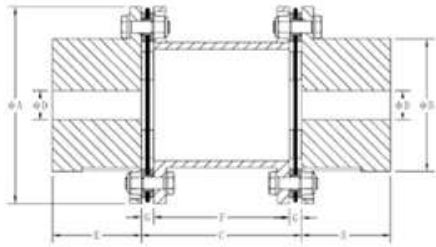
SSD-346-6 used for paper machine-
Fujian Lianshen paper co., ltd
April paper co., Ltd
Sun paper Beihai co., ltd



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Application-Fluids and environment industry

DCX-6 series used for water pump, chemical pump, pump & paper pump-
OEM's : Andritz , KSB, Sulzer ITT...



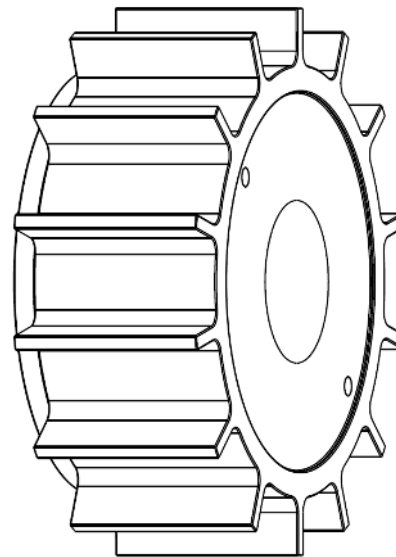
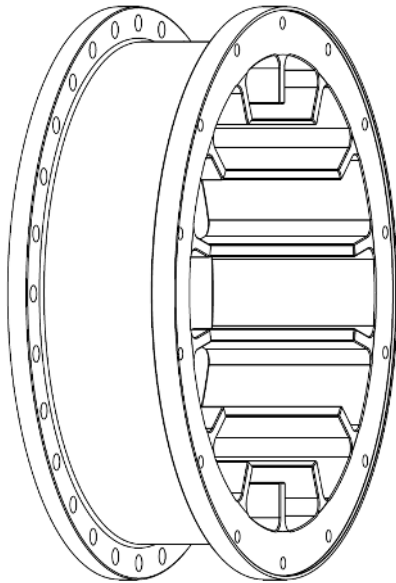
B Series Resilient Coupling B系列弹性体联轴器

- No Lubrication, Low Maintenance 无需润滑，低维护
- Resilient Material Loaded in Compression, Not Shear. 弹性体在压缩力下工作，不是剪切力
- Fail-safe, interlocking blade design. 失效保护，内部自锁设计
- Replaceable blocks are the only wear items. 整个产品只有弹性体是易损件
- Design Limitations 设计限制
 - size is larger than gear couplings 能量密度比鼓形齿联轴器小
 - speed limitations due to size 尺寸会限制适用的转速
 - temperature limitations for the blocks 弹性体有工作温度限制



B Series Resilient Coupling B系列弹性体联轴器

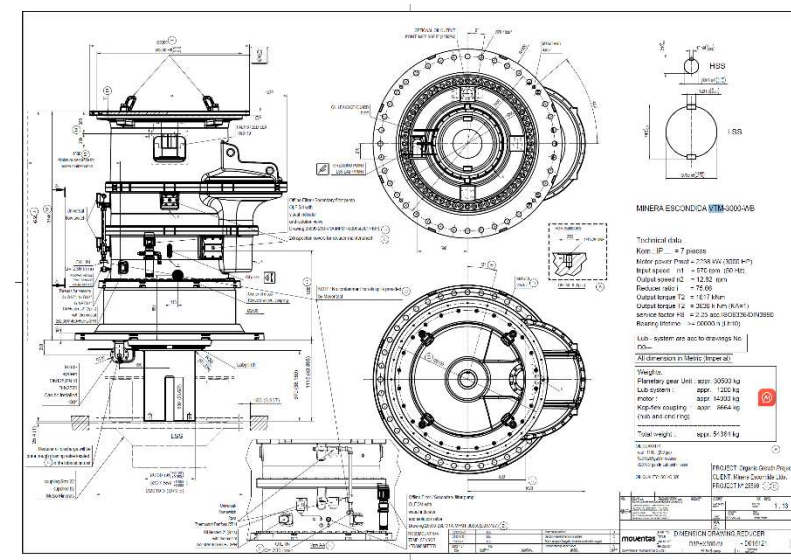
- BWB and BCB Couplings BWB和BCB联轴器
 - Hubs, Sleeves and End Rings are made from 三个主要零件的原材料
 - Carbon Steel Plate for smaller sizes 小规格用碳钢
 - Ductile Iron Castings for larger sizes 大规格用球墨铸铁
- Special Material for Special Applications 特殊的应用选用特殊的材料
 - High Speed, Low Temperature, Non-magnetic, High Interference fits 高速, 低温, 非磁和高过盈配合



Prospect 展望

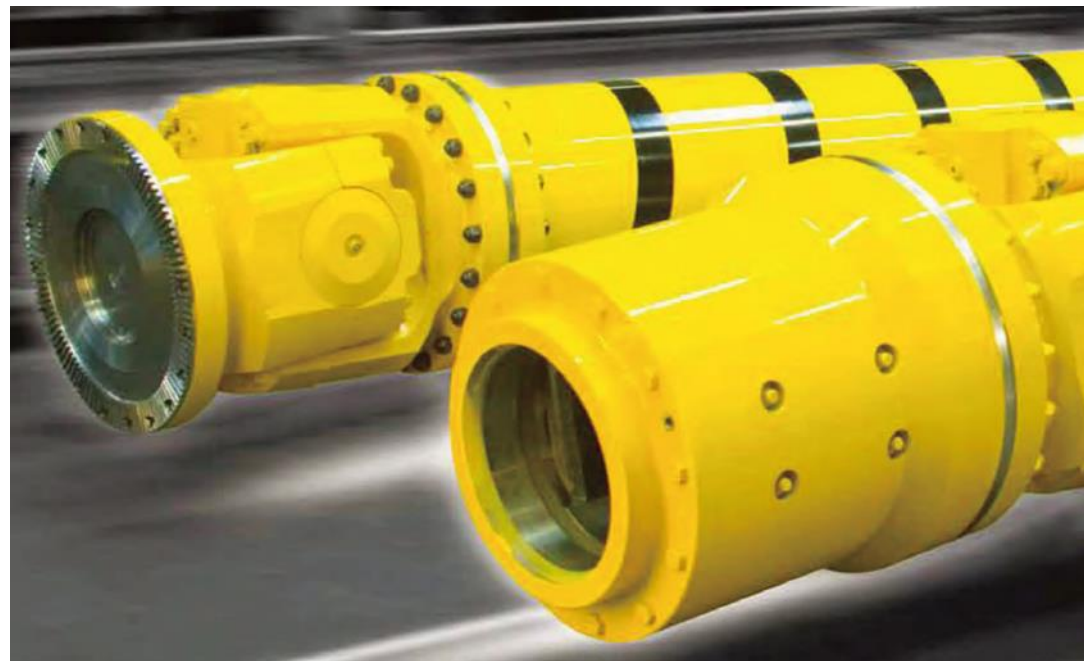
Mining 矿山。

- Application: vertical mil 立式磨机
- Feinnord product: B series elastic coupling.
- 菲诺德对应产品: B系列高弹性联轴器
- Main customers: METSO, THYSSENKRUPP, CITIC, NHI...
- 主要客户: 美卓, 蒂森克虏伯, 中信重工, 北方重工
- Main competitors: KTR, KOP-LEX, RENOLD
- 主要竞争对手: 开天, 雷勃, 瑞诺德

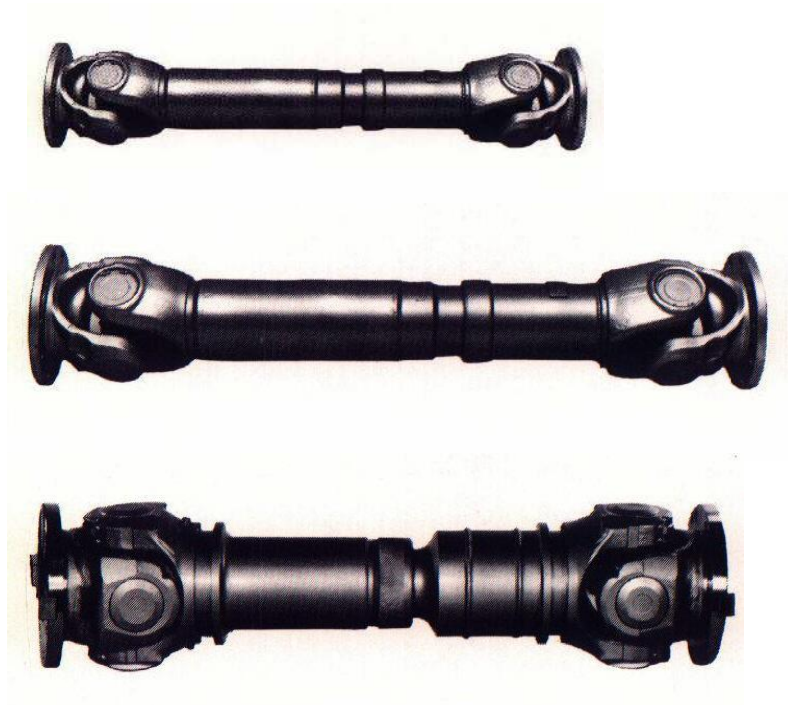


U Series Resilient Coupling U系列万向节联轴器

- General applications 应用广泛
- Advantages 优点
 - Good misalignment accommodation 补偿性好;
 - power dense, high reliability 承载能力大, 可靠性较高;
 - No leakage, no pollution 无泄漏, 无污染;
 - Low maintenance, low cost 维护量少, 成本低;
 - Easy installation 拆装方便。
- Disadvantages 缺点
 - Complicated structures 结构复杂
 - Long manufacturing process 加工工艺流程长



U Series Universal joint Coupling U系列万向节联轴器



- Swing diameter 回转直径: 435 mm
- Load 载荷: 265 kNm
- Max.不对中 24°

Figure 1 Split Yoke

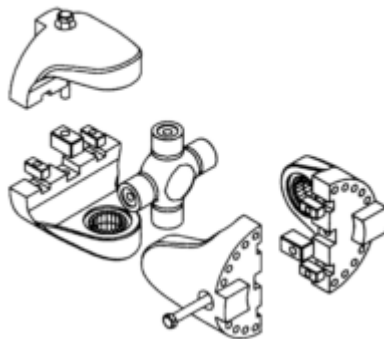


Figure 3 Solid (Closed) Eye

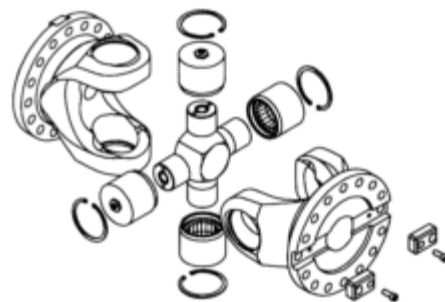


Figure 2 KOYO Block Design

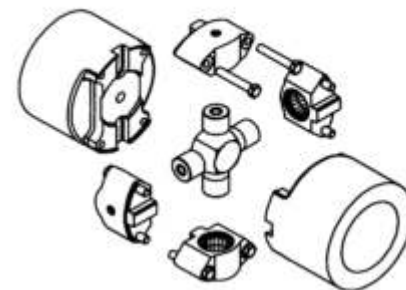
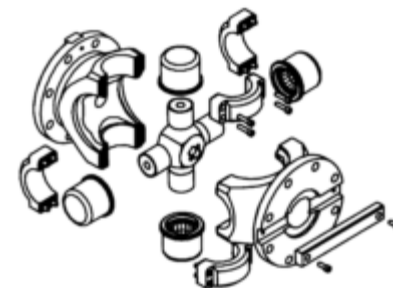


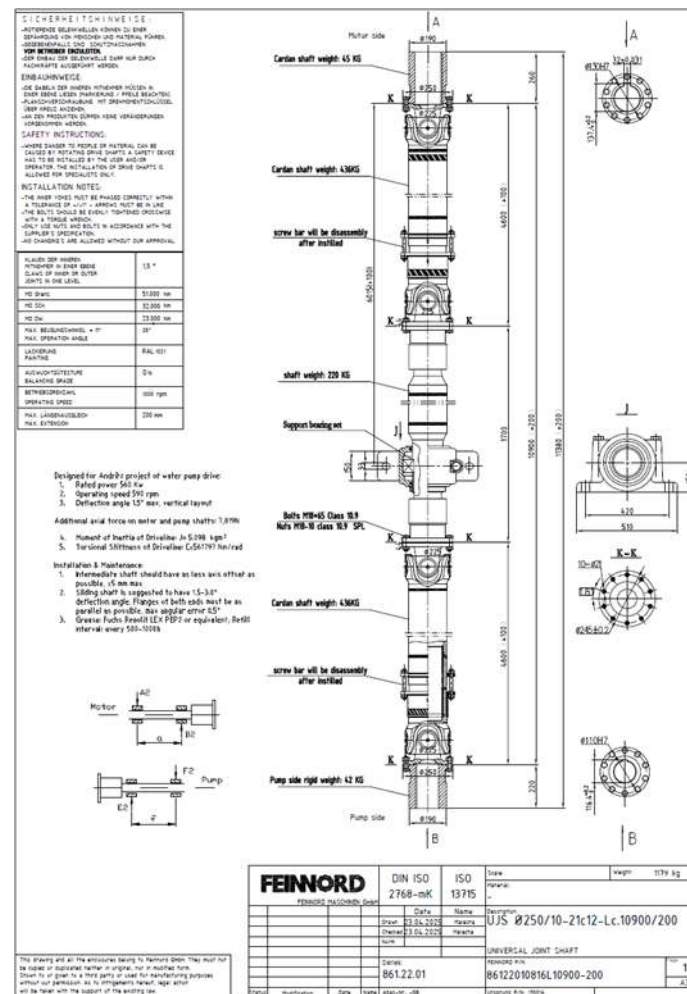
Figure 4 Split Eye



Application- Pump

Vertical pump 泵。

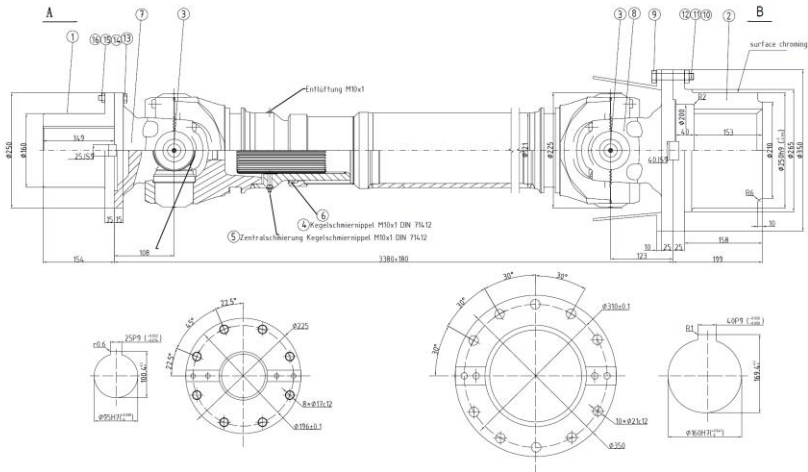
- Application: vertical pump, Multipole pump.
- 应用： 立式提升泵， 多极泵
- Feinnord product: S series disc coupling, cardan shaft.
- 菲诺德对应产品S系列膜片联轴器， 万向轴
- Main customers: ANDRITZ, SULZER, KSB
- 主要客户： 安德里茨， 苏尔泵， 凯士比



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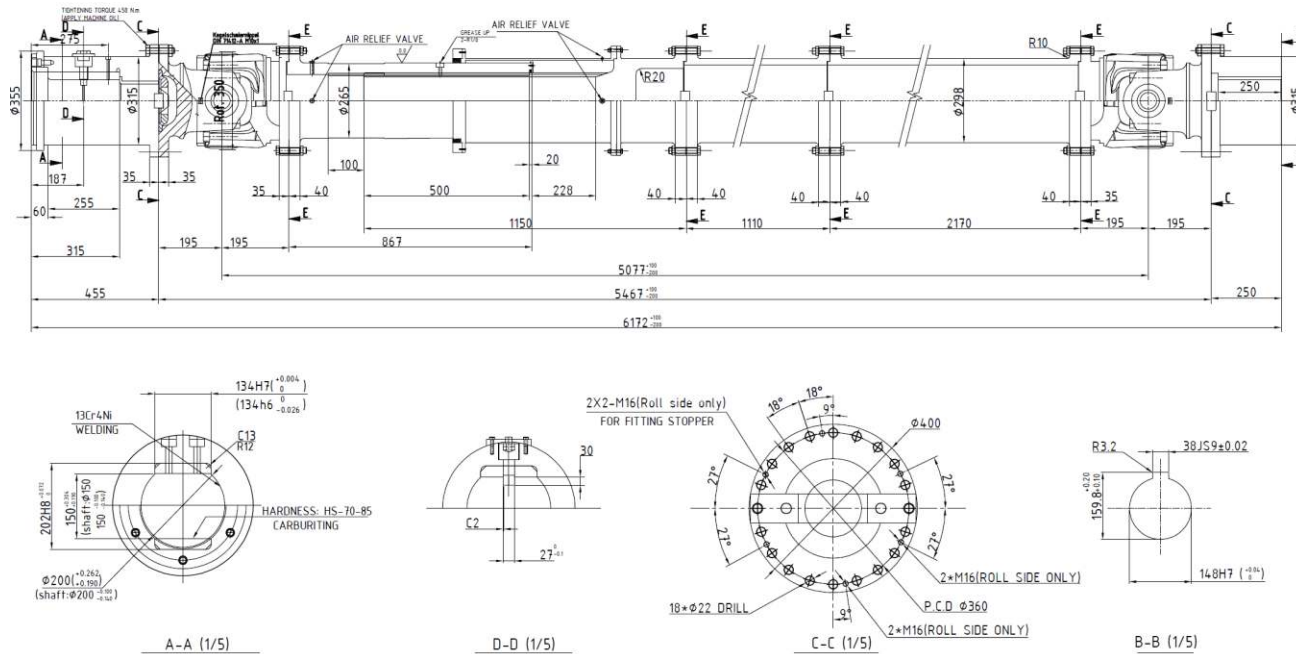
Application-steel industry

861.25.02 cardan shaft used for down coiler of MHI Hot strip mill-
Formosa Ha Tinh steel corporation

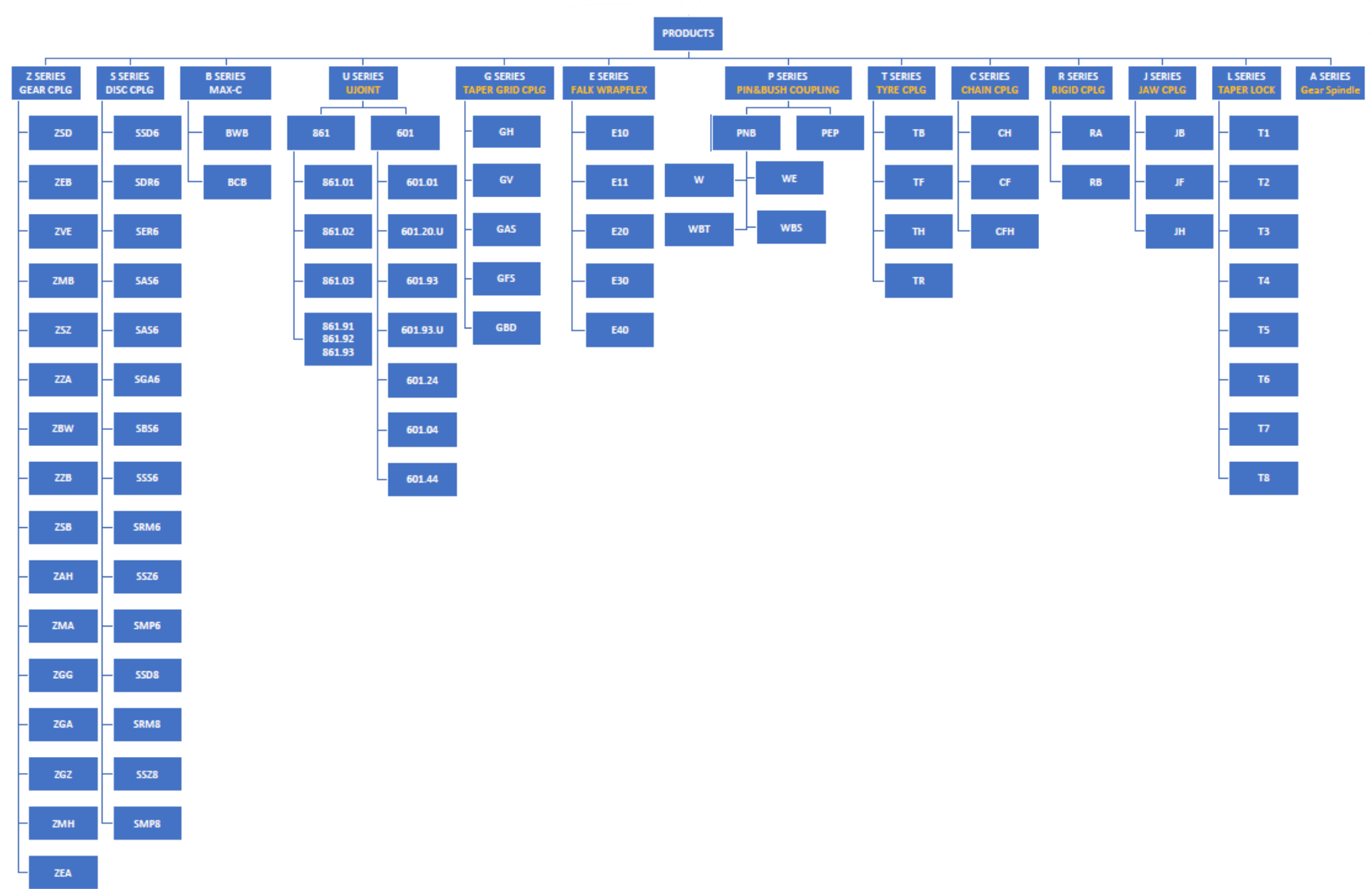


Application-steel industry

861.35.92 cardan shaft used for Pinch roll of MHI Hot strip mill-
Fujian Fuxin special steel company



Others 其他类型联轴器



Others 其他类型联轴器

- A Series Gear Spindles 鼓形齿传动轴
- E Series Easy Change Elastic Coupling (interchangeable with FALK WRAPFLEX) 快换式弹性体联轴器
(与FALK WRAPFLEX互换)
- P Series Pin&Bush Coupling 弹性柱销和弹性套柱销联轴器
- T Series Tyre Coupling 轮胎联轴器
- C Series Chain Coupling 链条联轴器
- R Series Rigid Coupling 刚性联轴器
- J Series Jaw Coupling 梅花联轴器
- L Series Taper Lock Component 锥套锁紧组件

Repair & Service 维修业务 - Gear Spindle Repair & Revamp 鼓形齿传动轴的维修和改造

Feinnord has a continuous service and business in the gear spindle repairing/refurbishment based on the European technical background and local experienced and skilled team.

基于欧洲的技术背景和本地富有经验和技能的团队，Feinnord 在鼓形齿传动轴的维修和翻新领域有一个持续的服务和业务。



Repair & Service 维修业务 - U Joint in Steel Mill Repair 轧钢线万向节维修

With deep technical cummmunication years ago, we got the trial running of drive shaft repairing and refurbishment. We have served on the different shafts:
540 / 690 / 770 / 970 / 1080.

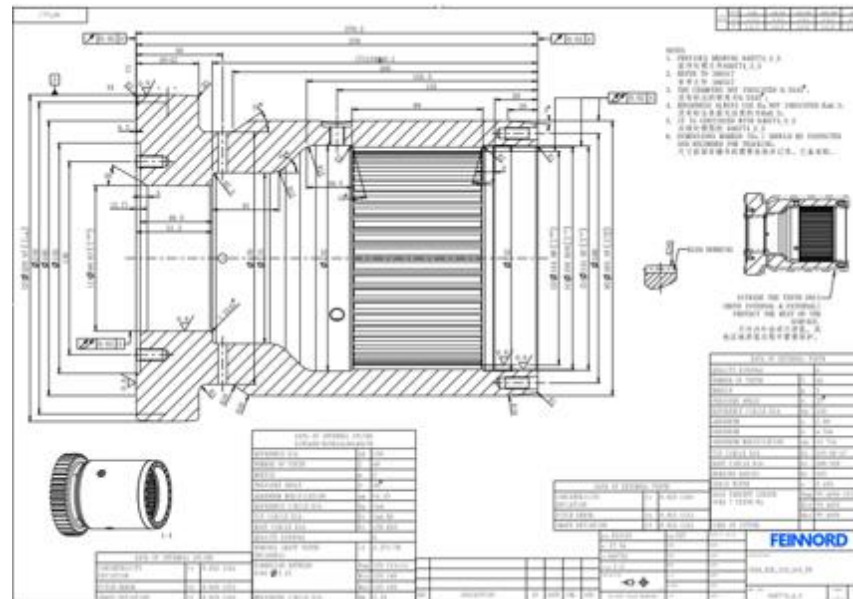
多年前，经过与客户深入的技术交流，我们获得了尝试维修万向传动轴的机会。到目前为止，我们已经维修了不同规格的产品，主要的型号有 540 / 690 / 770 / 970 / 1080。



Repair & Service 维修业务 - Spares 备件

We have complete reverse-engineering capabilities to fulfil customer demands for gearbox/coupling and component refurbishment issues.

我们具有完整的逆向工程能力，能够满足客户关于齿轮箱，联轴器以及零配件的翻新需求。



Our Customers



StoraEnso



福建鼎盛钢铁有限公司(1)



Thank You !