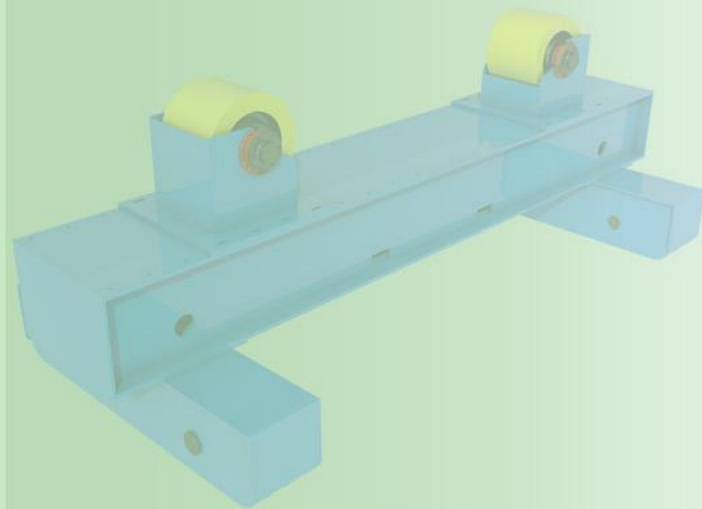
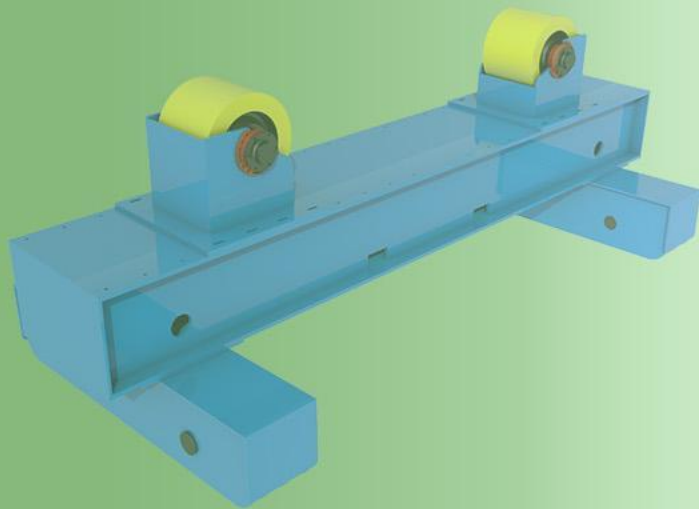
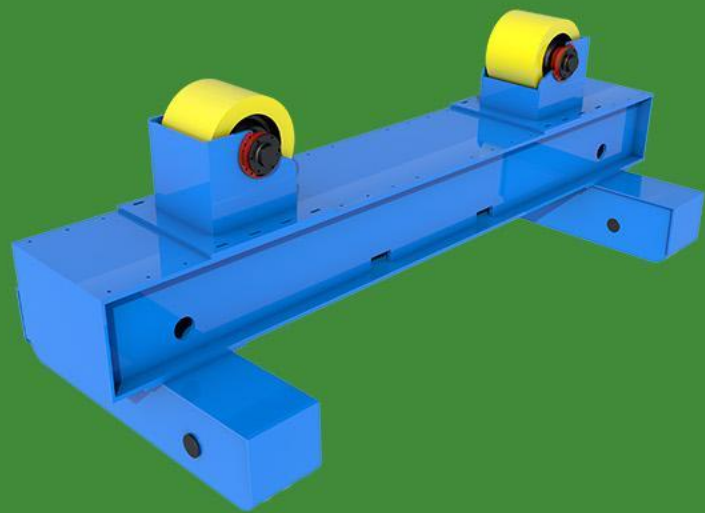


行星革新起重
科技改变行业



PAIR ROLLER FRAME 组对滚轮架

河南三智装备科技有限公司
Henan Sanzhi Equipment Technology Co., Ltd

SZW

CATALOGUE

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COMPANY PROFILE

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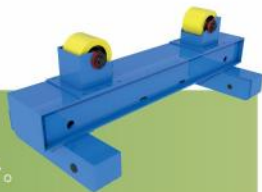
COMPANY PROFILE

企业简介

河南三智装备科技有限公司,位于河南(长垣)起重工业园区,是一家专业设计、生产起重机配套零部件的企业。在传动领域享有很高的声誉,已与国内多家起重行业公司达成合作。三智以科技创新产品,以服务引领未来,以品质为根本、质量为基要。为用户提供卓越的产品、精准的服务。为起重机配套零部件,开拓更先进的供应链和市场模式。凭借雄厚的专业底蕴,独具匠心的研发能力,科学完备质量、服务、管理体系,向新老客户提供值得信赖的增值服务和产品。助力降低成本,精建优质产品。

公司的主要产品有:新型行星电动葫芦、新型行星电动双梁小车、新型低净空电动葫芦、五合一行星车轮组(车轮、行星减速机、联轴器、电机、制动器)、车轮组、行星减速机、行星变幅器等。结构部件的制作均严格按照欧洲工艺标准进行生产,整机性能超越国外同类产品的技术水平,技术满足于不同客户的需求,上下求索细研品质,让卓越品质成为给予客户的坚实保障。公司产品广泛应用于冶金、矿山、起重运输、电力、化工、造船、路港、电子、军工、食品等行业。

以匠心精雕细琢,用品质赢得信赖,
我们不做市场的过客,只做行业的标杆。



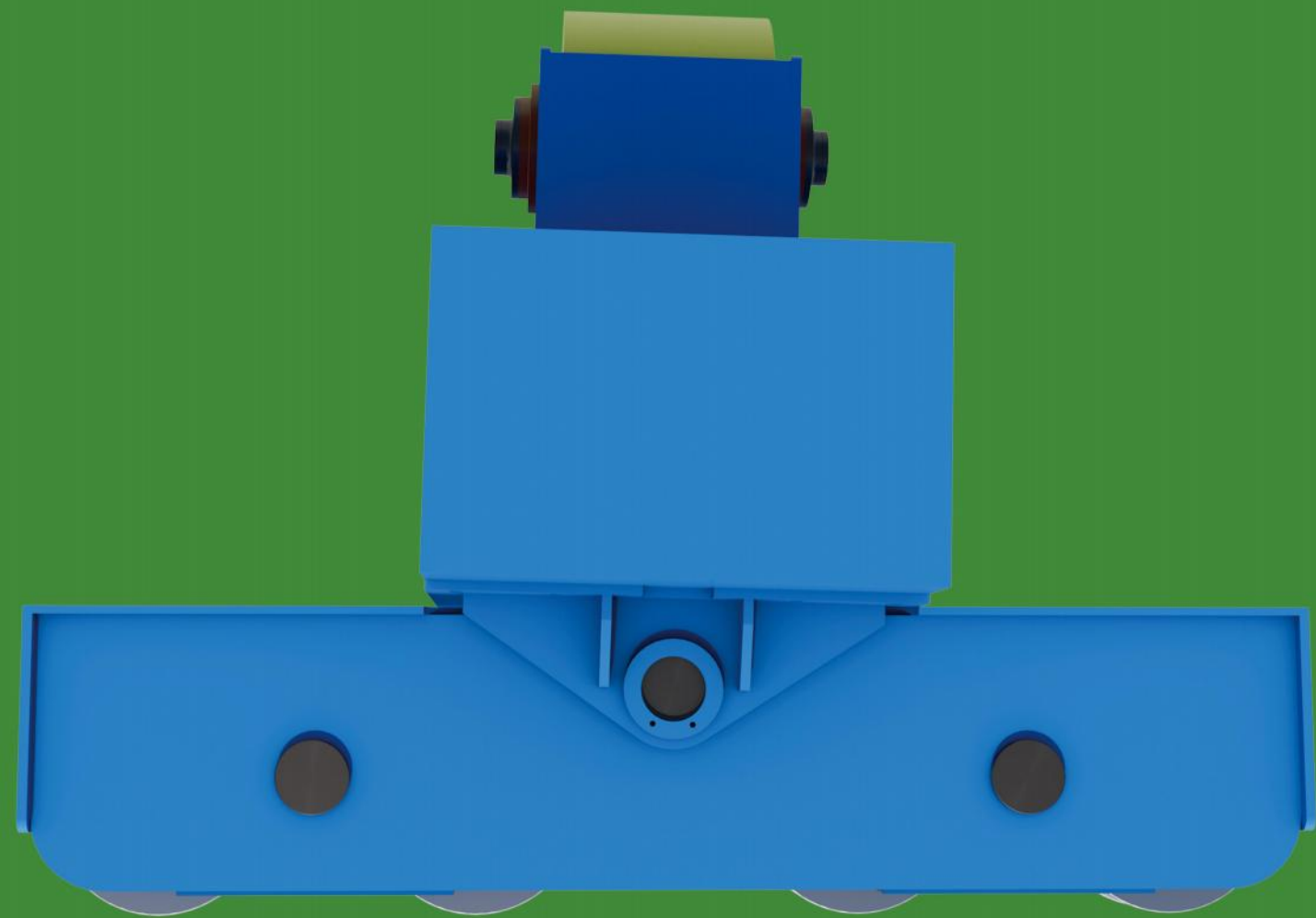
用科技突破品质边界,以创新定义行业标准,
我们不止于合格,更追求极致。

服务不是流程,而是一场双向奔赴,
您的满意,是我们最大的成就。



SZW

WIN THE FUTURE WITH INNOVATION
用新赢未来



技术参数

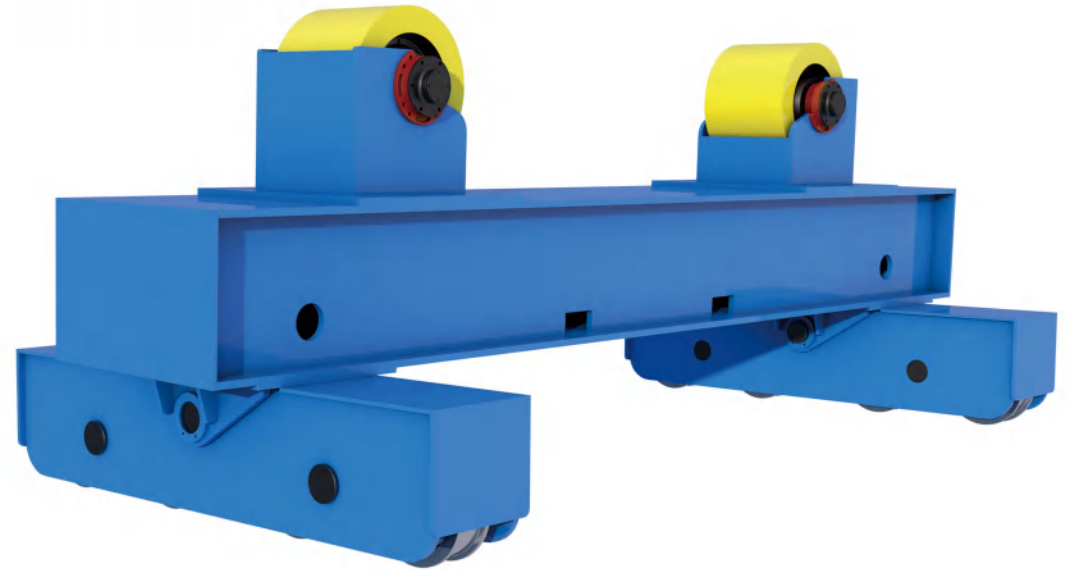
TECHNICAL PARAMETER

PARAMETER 技术参数

A PAIR OF ROLLER STANDS 组对滚轮架

滚轮架主要用于圆柱形筒体的焊接、打磨、衬胶及装配，有自调式、可调式及平车式、倾斜式、防窜式、移动式等多种结构形式。可根据用户的需求选择结构，也可为广大用户设计制造各种特种特制专用滚轮架。内置模块化设计的高强度行星减速机；耐冲击，结构简单，体积小；扭矩大，承载能力强；自重轻，安装简单；拆装便捷，免维护，寿命长。重载耐磨，平稳静音，采用全包胶聚氨酯滚轮（钢芯+高硬度聚氨酯），承载能力强，耐磨性能优异，耐油、耐老化，胶轮使用寿命 $\geq 8000\text{h}$ ，且不划伤工件表面，缓冲减震效果佳；内置高精度优质轴承，搭配超静音设计，滚轮转动灵活无卡滞，工件旋转无颤抖、无爬行，运行噪音 $\leq 65\text{dB}$ ，保障加工精度；滚轮座连接装置支持滚轮角度微调，与工件曲面完美贴合，受力均匀，避免局部应力集中。

The roller frame is mainly used for welding, polishing, lining and assembly of cylindrical simplified bodies. It has various structural forms such as self-adjusting, adjustable, flatbed, inclined, anti slip, and mobile. We can choose the structure according to the needs of users, and also design and manufacture various special and specialized roller frames for a wide range of users. High strength planetary gearbox with built-in modular design; Impact resistant, simple structure, and small size; High torque and strong load-bearing capacity; Lightweight and easy to install; Easy disassembly, maintenance free, and long lifespan. Heavy duty wear-resistant, smooth and quiet, using fully wrapped polyurethane rollers (steel core+high hardness polyurethane), with strong load-bearing capacity, excellent wear resistance, oil resistance, aging resistance, rubber wheel service life $\geq 8000\text{h}$, and does not scratch the surface of the workpiece, with excellent cushioning and shock absorption effect; Built in high-precision and high-quality bearings, paired with ultra quiet design, the roller rotates flexibly without jamming, the workpiece rotates without shaking or crawling, and the operating noise is $\leq 65\text{dB}$, ensuring machining accuracy; The roller seat connection device supports fine adjustment of the roller angle, perfectly fitting with the workpiece surface, evenly distributing force, and avoiding local stress concentration.



组对滚轮架

额定承载 80t ~3000t

有效直径范围 800mm~25000mm

滚轮直径 500mm ~ 1000mm

滚轮宽度 260mm ~ 400mm

Group roller frame

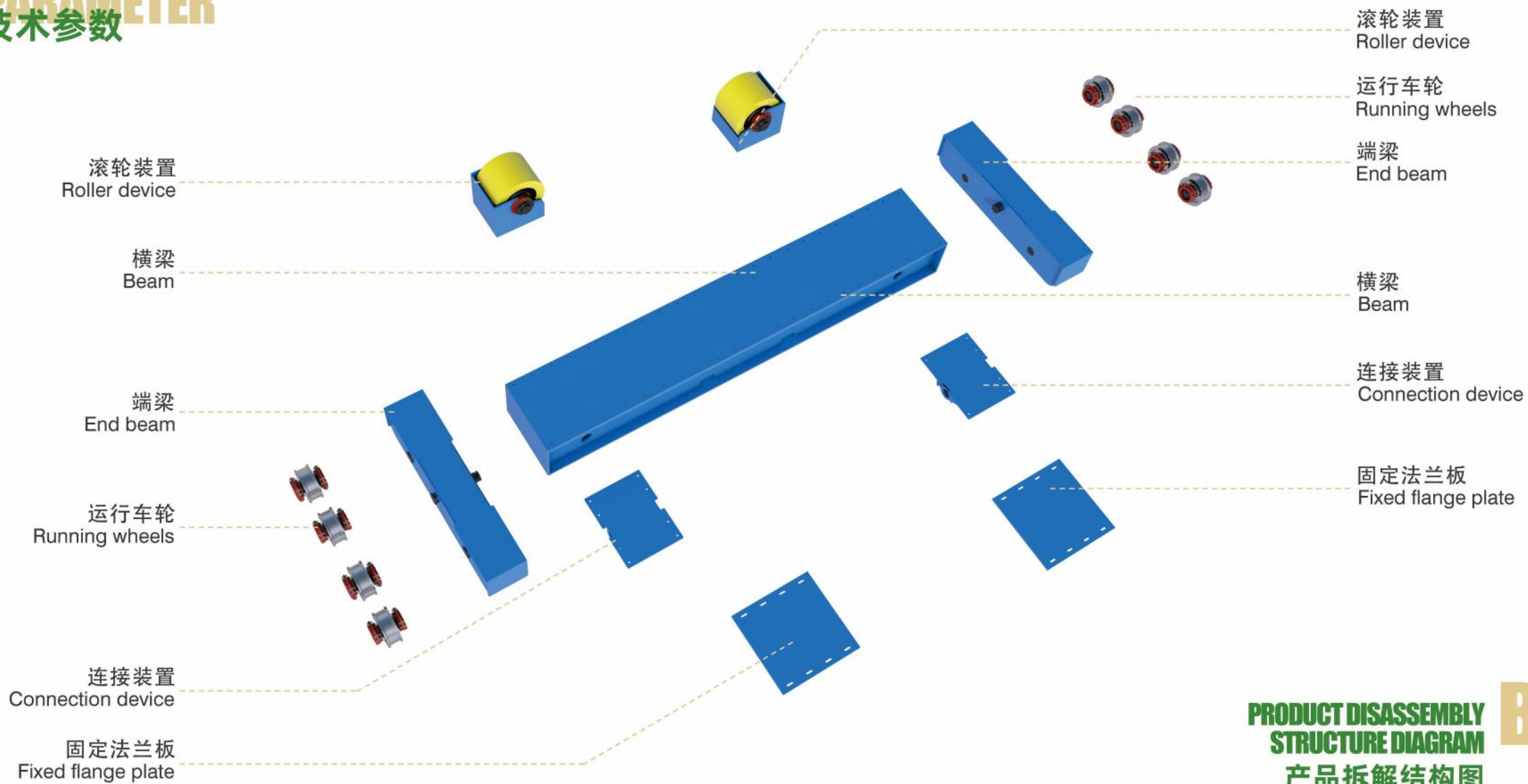
Rated capacity 80t~3000t

Effective diameter range 800mm~25000mm

Roller diameter 500mm ~ 1000mm

Roller width 260mm ~ 400mm

PARAMETER
技术参数



SZW

PARAMETER 技术参数

PAIR OF ROLLER STANDS 组对滚轮架

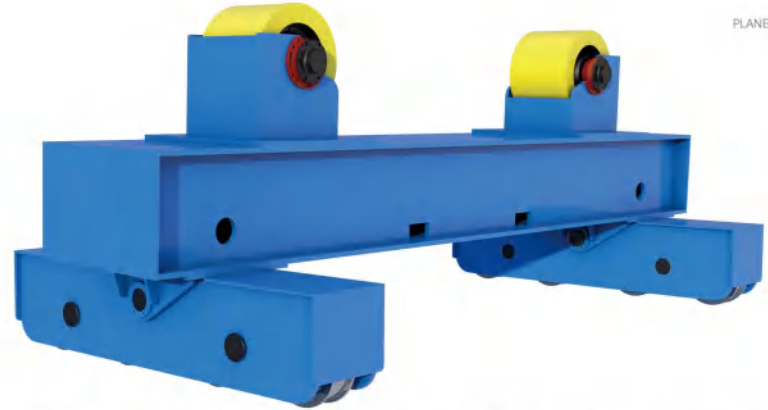
内置高强度模块化行星减速机，传动效率 $\geq 95\%$ ，扭矩大（最高 $20000\text{N}\cdot\text{m}$ ），耐冲击性强，可适配变频电机、伺服电机，满足不同转速需求；减速机结构简单、体积小、自重轻，免维护设计，无易损件，使用寿命 ≥ 10 年。轻量化 + 模块化设计，耐磨抗冲击，车轮整体使用寿命 $\geq 12000\text{h}$ 。

连接装置：角度可调，适配性广，铰接式结构，实现滚轮支撑单元最大 2.84° 角度微调，可完美贴合锥体、分段不等径等非标准圆筒曲面；结构刚性强，倾斜后仍保证足够承载能力，避免重载变形，适配重型大型工件（大直径罐体、风电塔筒）加工需求。机架结构：坚固耐用，安装灵活

机架采用加厚型钢焊接 + 整体消应力处理，刚性强、承载力稳，重载下无变形，整体强度满足 3000t 级承载要求；机架底部预留标准化安装孔，便于地面固定或对接生产线，可移动设计支持快速切换工位，适配柔性生产需求；机架及组件做专业防护处理，防尘、抗振，适应车间恶劣工作环境，长期运行故障率 $\leq 0.5\%$ /年。整体性能：多工序适配，高效可靠，覆盖焊接、装配、打磨、衬胶、无损检测等多道工序，是压力容器、风电塔筒、长输管道等工件加工的核心设备；

全吨位覆盖 $80\text{t}-3000\text{t}$ ，工件有效直径适配 $800\text{mm}-25000\text{mm}$ ，满足不同规格筒体加工需求；

整机装配精度高，运行平稳，定位精准，有效提升工件加工的工艺一致性与合格率。



PLANETARY INNOVATION CRANE
行星革新起重

Built in high-strength modular planetary gearbox, transmission efficiency $\geq 95\%$, high torque (up to $20000\text{N}\cdot\text{m}$), strong impact resistance, adaptable to variable frequency motors and servo motors, meeting different speed requirements; The reducer has a simple structure, small size, light weight, maintenance free design, no vulnerable parts, and a service life of ≥ 10 years. Lightweight and modular design, wear-resistant and impact resistant, with an overall service life of $\geq 12000\text{h}$ for the wheels.

Connection device: adjustable angle, wide adaptability, articulated structure, achieving a maximum angle adjustment of 2.84° for the roller support unit, which can perfectly fit non-standard cylindrical surfaces such as cones, segmented unequal diameters, etc; Strong structural rigidity, ensuring sufficient load-bearing capacity even after tilting, avoiding deformation under heavy loads, and adapting to the processing needs of heavy-duty large workpieces (large-diameter tanks, wind turbine towers). Rack structure: sturdy and durable, flexible installation

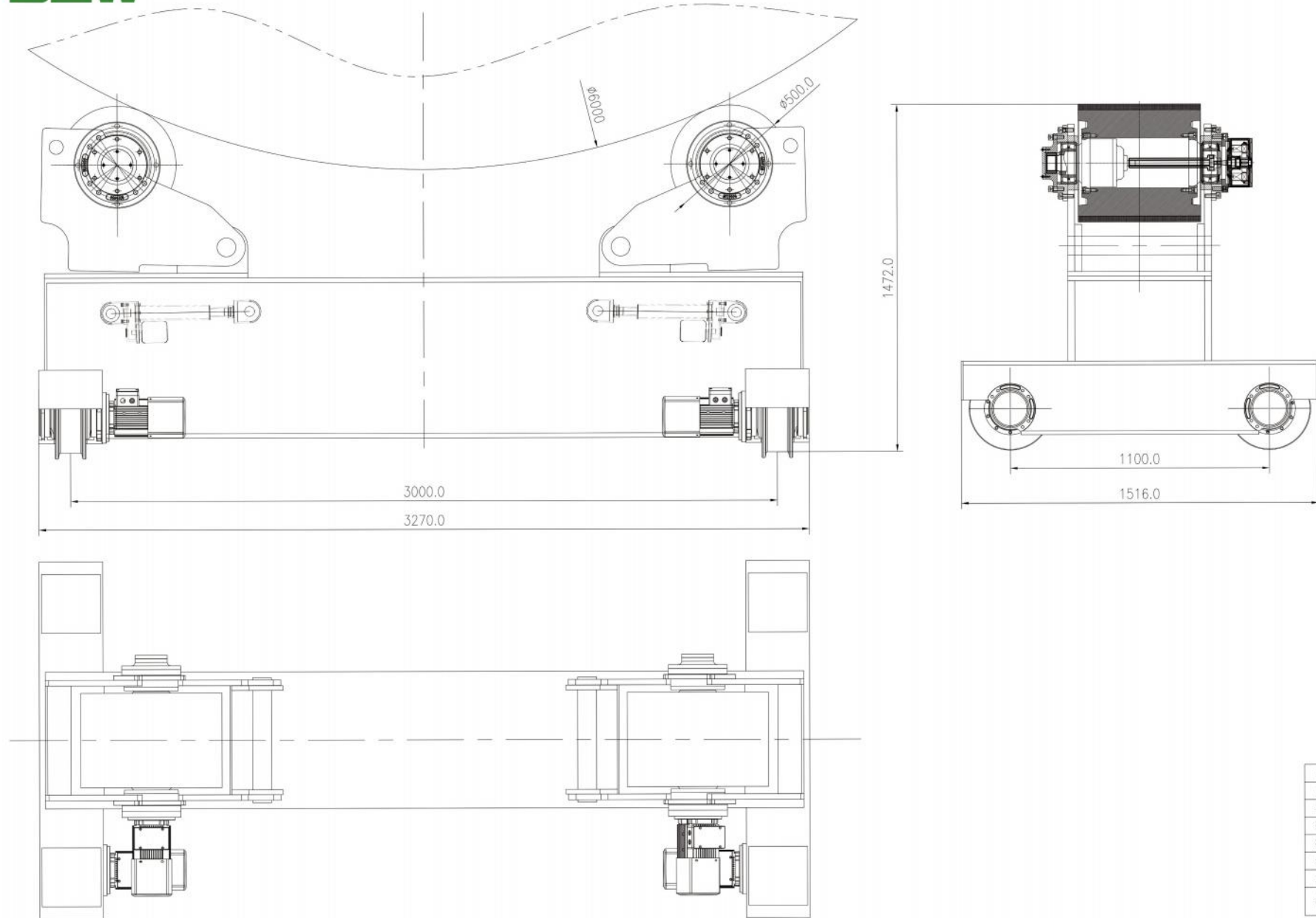
The frame adopts thickened steel welding and overall stress relief treatment, with strong rigidity, stable bearing capacity, no deformation under heavy load, and overall strength meeting the requirements of 3000t level bearing; Standardized installation holes are reserved at the bottom of the rack for easy ground fixation or docking with production lines. The movable design supports quick switching of workstations and adapts to flexible production needs; The rack and components are professionally protected to prevent dust and vibration, adapt to harsh working environments in the workshop, and have a long-term failure rate of $\leq 0.5\%$ /year. Overall performance: Multi process adaptation, efficient and reliable, covering multiple processes such as welding, assembly, polishing, lining, and non-destructive testing. It is the core equipment for processing workpieces such as pressure vessels, wind power towers, and long-distance pipelines;

Covering a full tonnage range of $80\text{t}-3000\text{t}$, the effective diameter of the workpiece is adapted to $800\text{mm}-25000\text{mm}$, meeting the processing requirements of different specifications of cylinder bodies;

The whole machine has high assembly accuracy, smooth operation, precise positioning, and effectively improves the process consistency and qualification rate of workpiece processing.

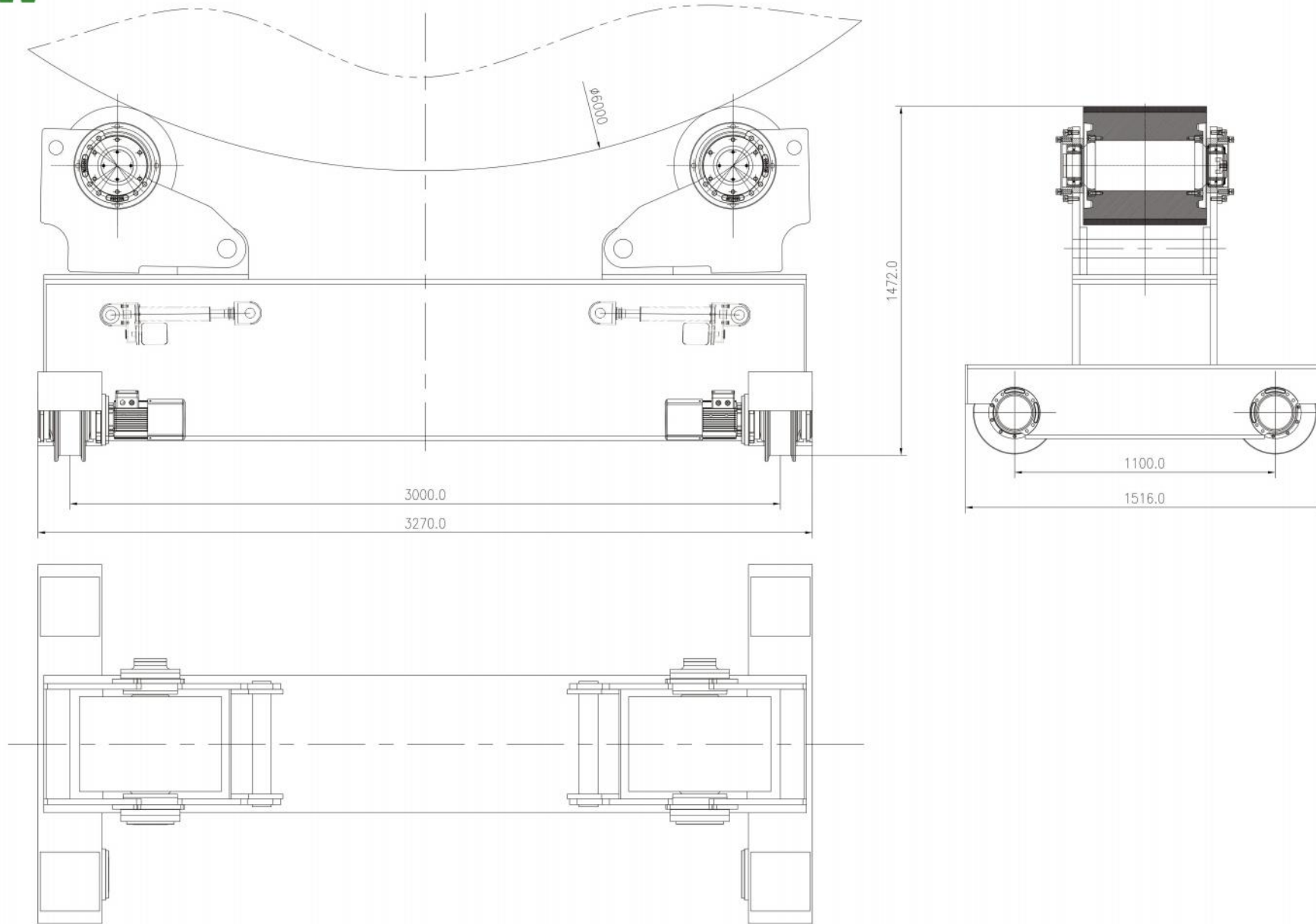
PARAMETER 技术参数

200t 主动



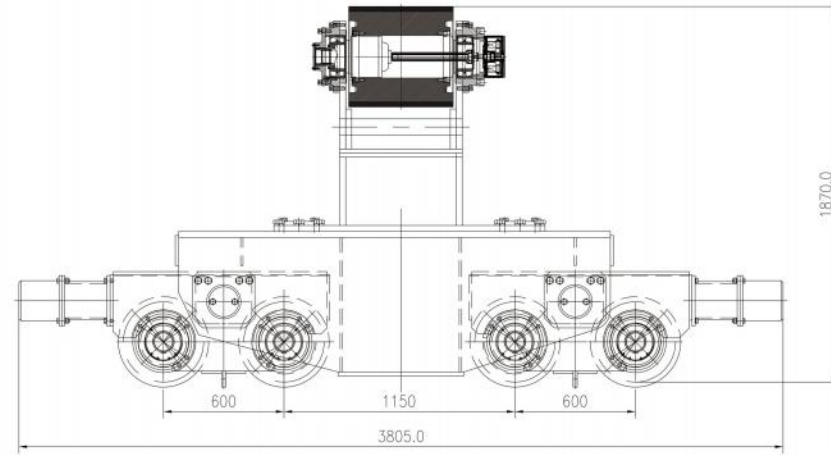
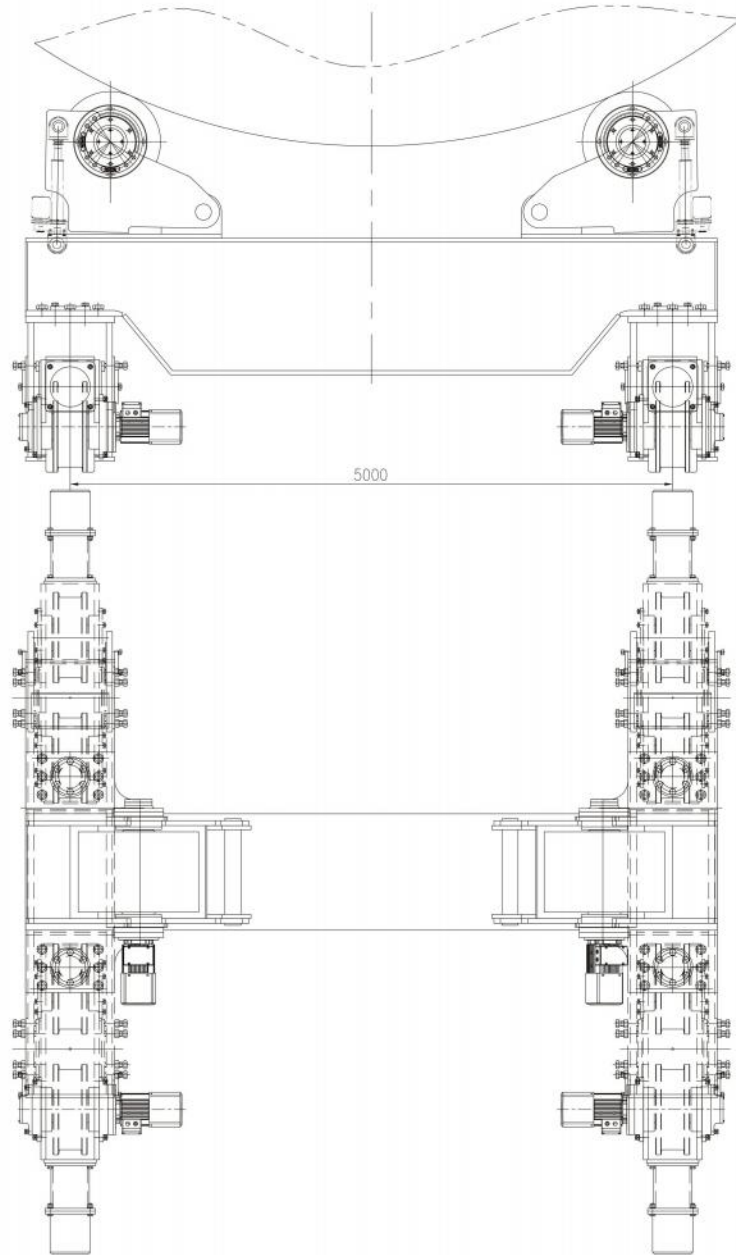
技术参数：

设备最大承载：100T	最大驱动及扭转载荷：200T	变频调速	
项目名称	运行机构	驱动机构	顶升装置
运行速度：mm/min	100-8000mm/min	线速度100-1000mm/min	线速度：10MM/S
减速机1：	/	KF 37 i=9.93	顶升质量：2x100t
减速机2：	Q500T3165-5K	Q500T3165-5K	
电机功率：	2x2.2kw	2x0.75kw	
车轮：mm	8x φ4.00	φ650x300	
输入电源：3相380V			



PARAMETER
技术参数

200t 从动



PARAMETER
技术参数

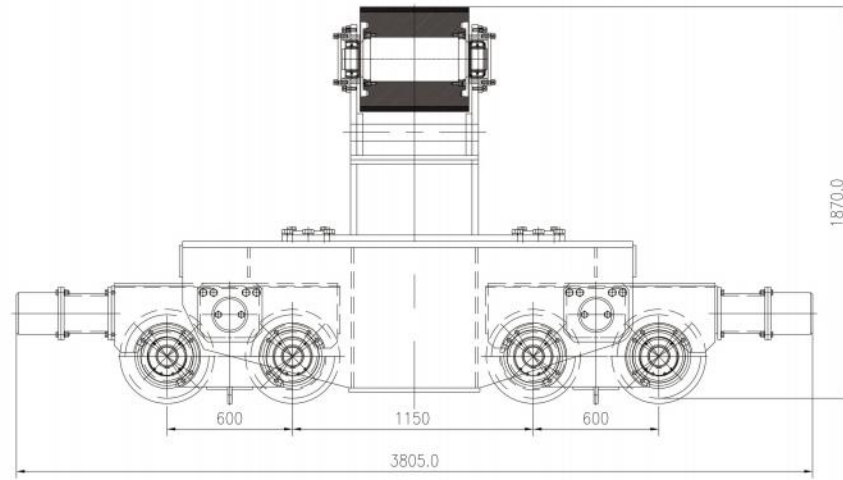
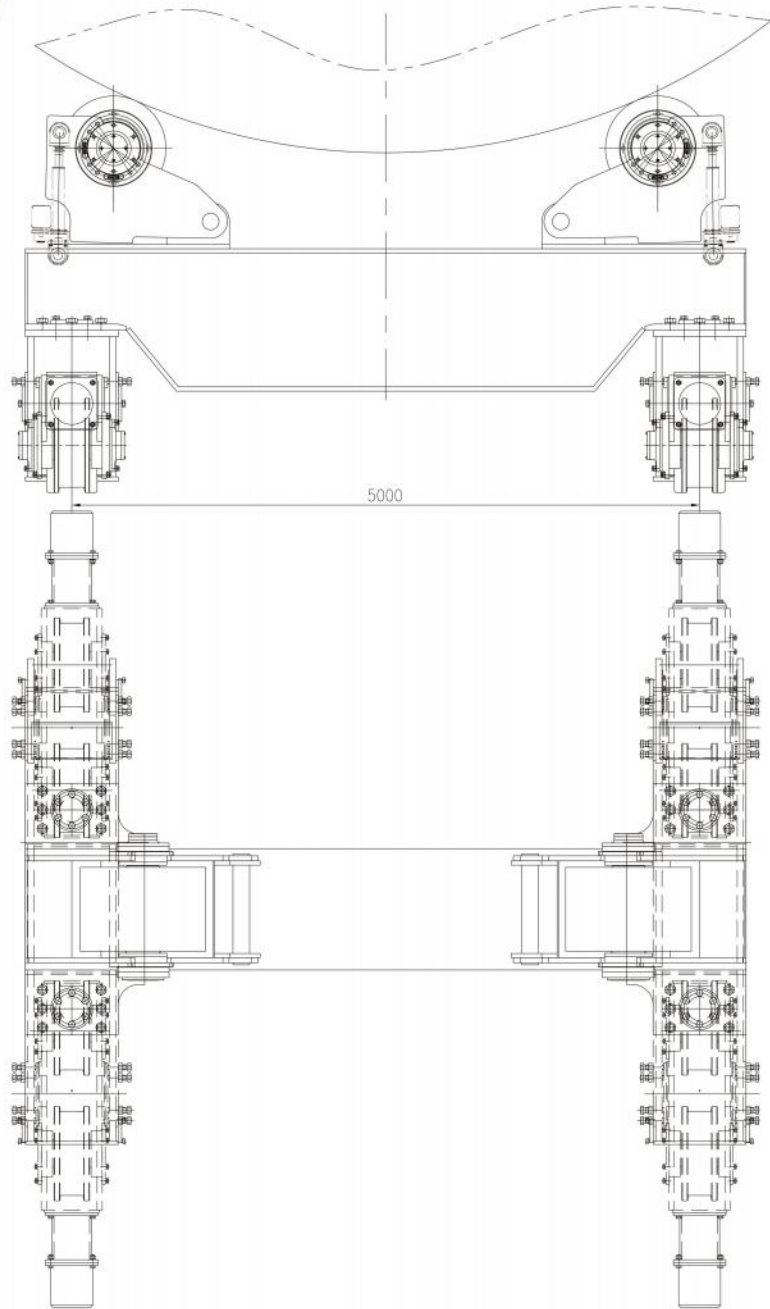
400t 主动

技术参数：

设备最大承载：200T	最大驱动及扭转载荷：400T	变频调速	
项目名称	运行机构	滚轮机构	顶升装置
运行速度：mm/min	100-8000mm/min	线速度100-1000mm/min	线速度：10MM/S
减速机1：	/	KF47 i=17.13	顶升质量：2x200t
减速机2：	Q500T3165-5K	Q700T3209-1W	
电机功率：	2x5.5kw	2x0.75kw	
车轮：mm	8x φ400	φ700x500	
输入电源：3相380V			

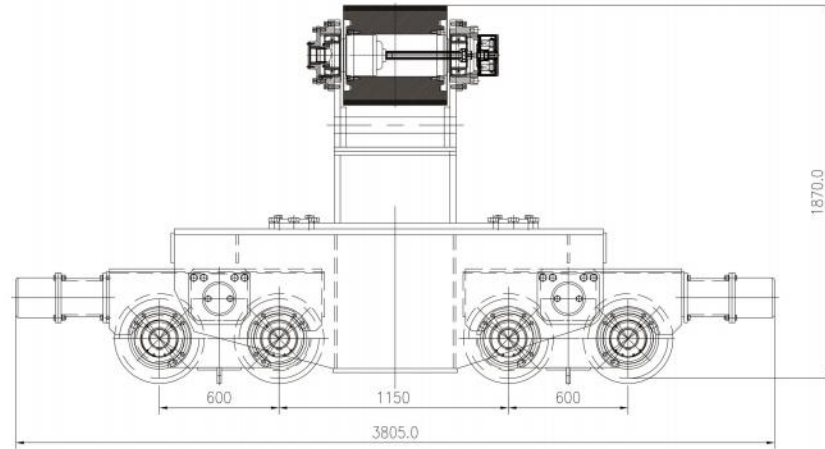
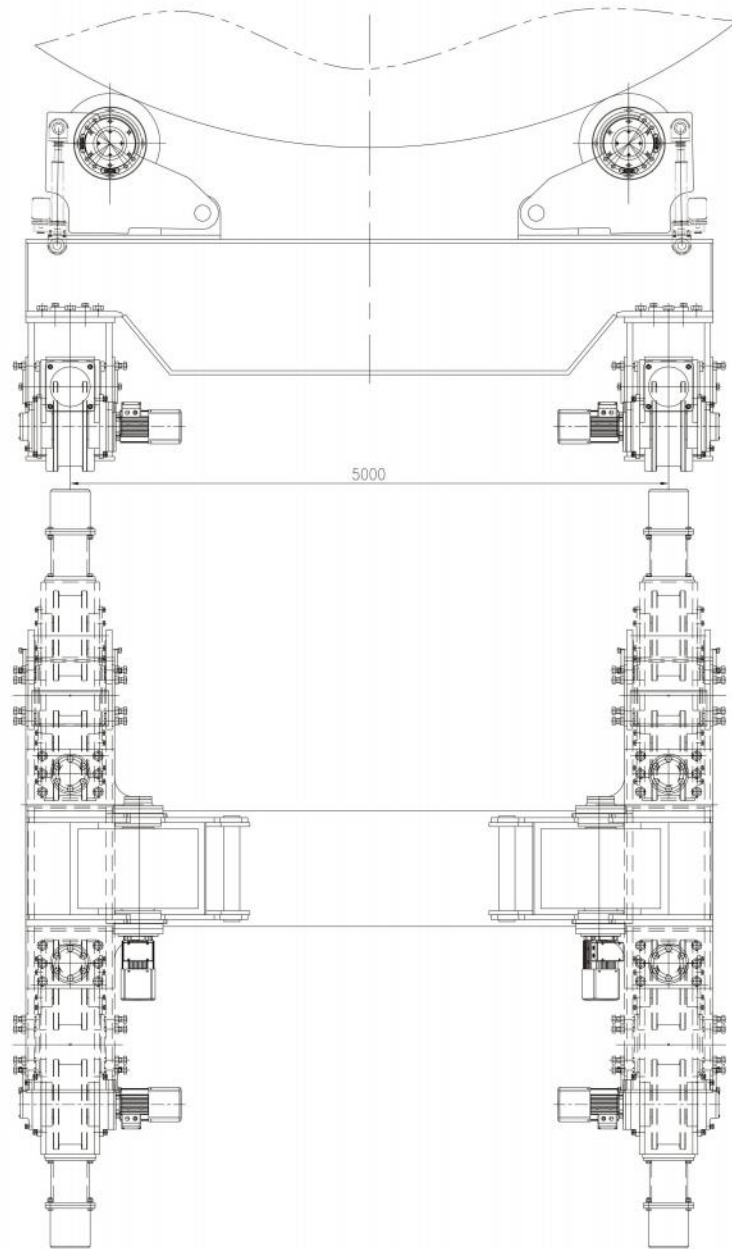
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PLANETARY INNOVATION CRANE
行星革新起重



PARAMETER
技术参数

400t 从动

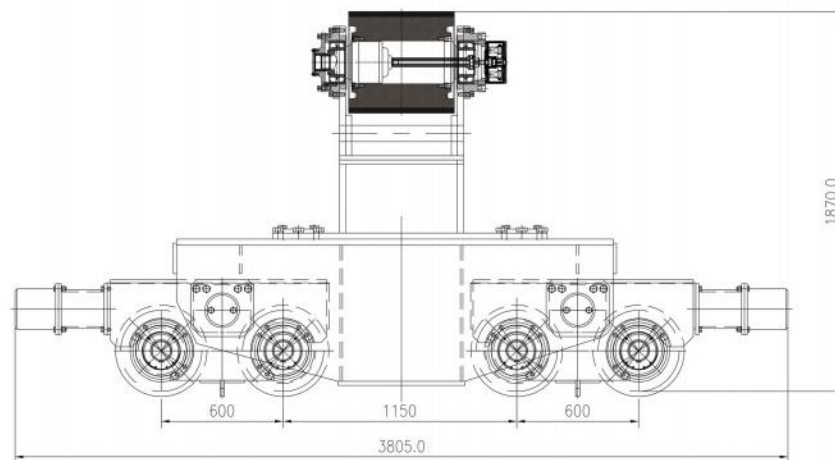
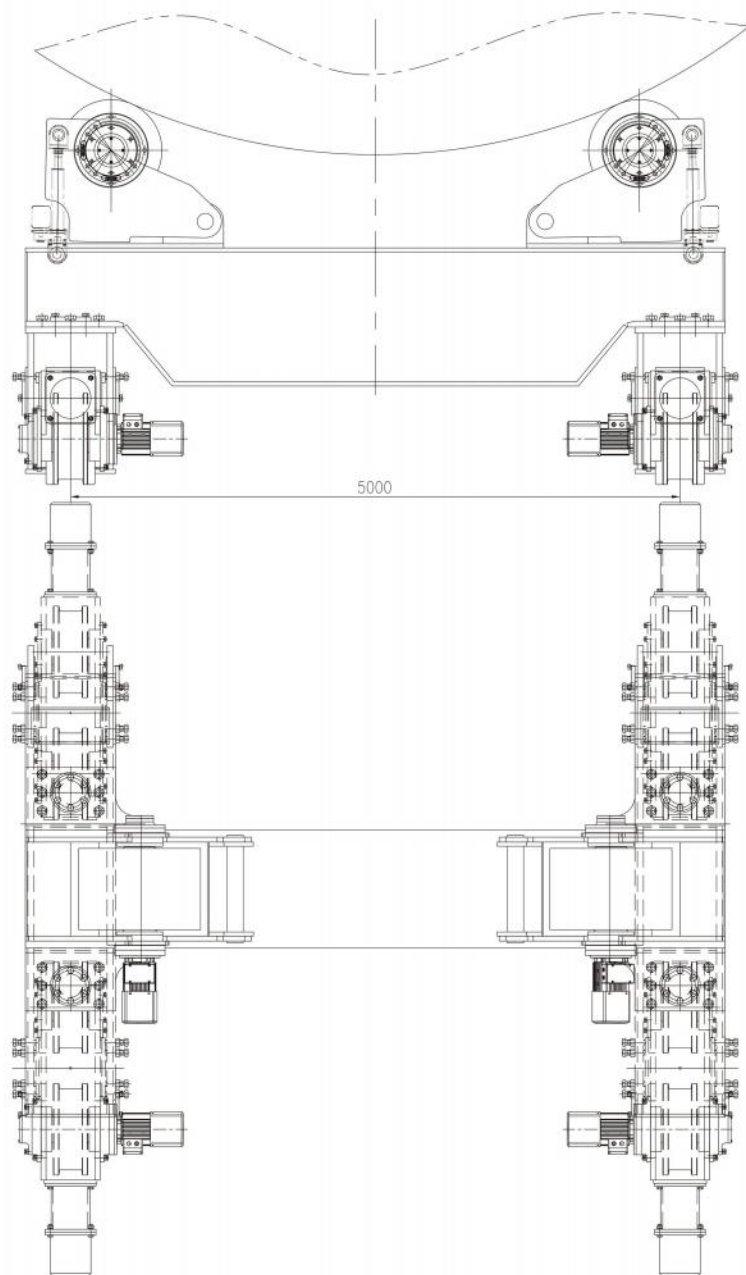


PARAMETER
技术参数

800t 主动

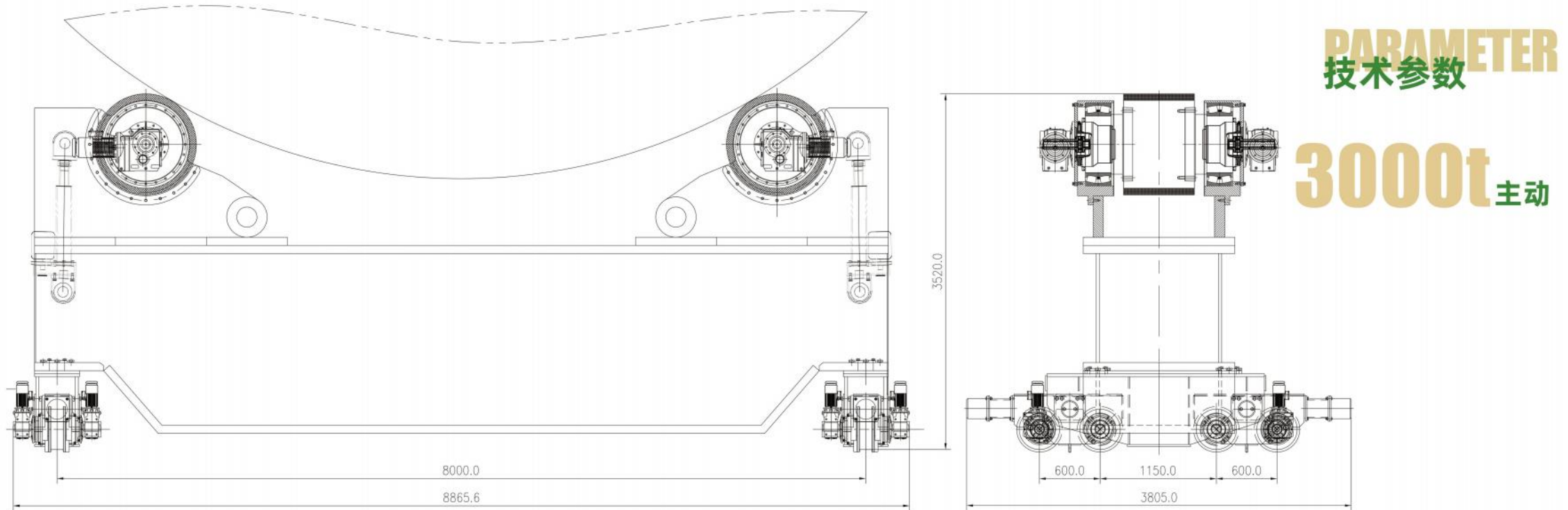
技术参数:

设备最大承载: 400T	最大驱动及扭转载荷: 800T	变频调速	
项目名称	运行机构	滚轮机构	顶升装置
运行速度: mm/min	100-8000mm/min	线速度100-1000mm/min	线速度: 10MM/S
减速机1:	/	KF37 i=11.08	顶升质量: 2x200t
减速机2:	Q500T3165-5K	HP34.0T3160	
电机功率:	2x5.5kw	2x15kw	
车轮: mm	8x φ400	φ800x500	
输入电源: 3相380V			



PARAMETER
技术参数

800t 从动



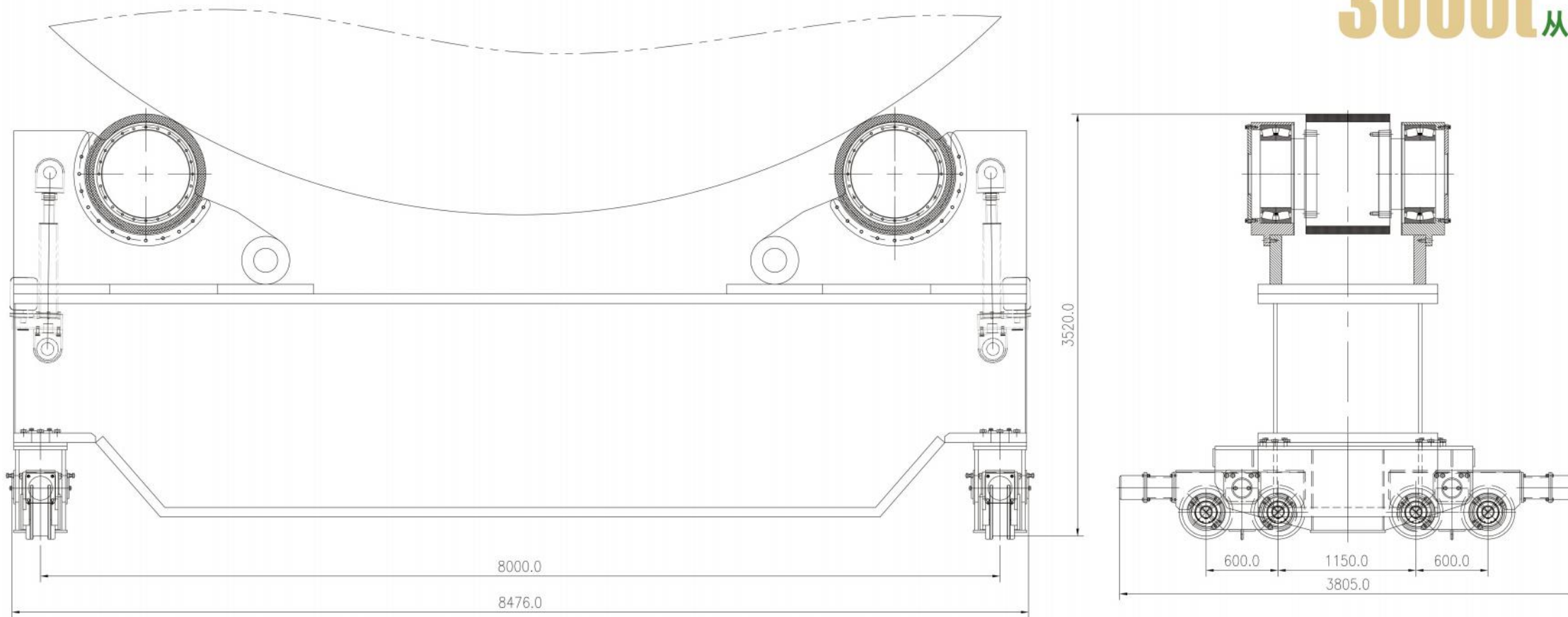
技术参数:

设备最大承载:800T 最大驱动及扭转载荷:3000T 变频调速

项目名称	运行机构	滚轮机构	顶升装置
运行速度: mm/min	100-2000mm/min	线速度100-1000mm/min	线速度: 5MM/S
减速机1:	KF47 i=8.24	KF67 i=27.33	顶升质量: 2x400t
减速机2:	Q700T3209-1W	HP380T3170-6W	
电机功率:	8x3.7kw	4x3.7kw	
车轮: mm	8x ϕ 700	ϕ 1000x700	
输入电源: 3相380V			

PARAMETER
技术参数

3000t 从动



PRODUCT ADVANTAGES

产品优势



ADVANTAGES

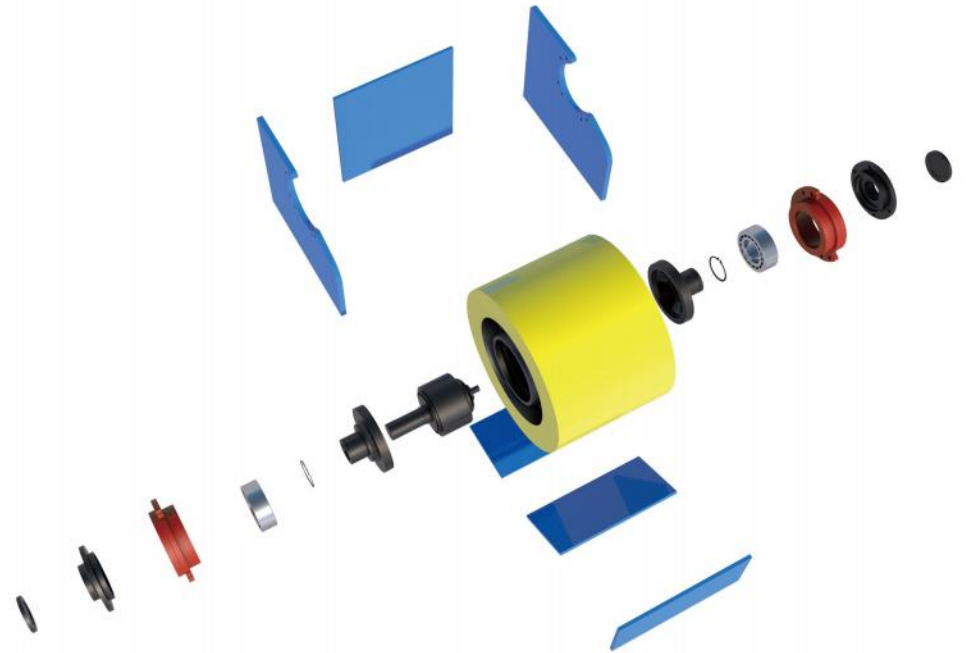
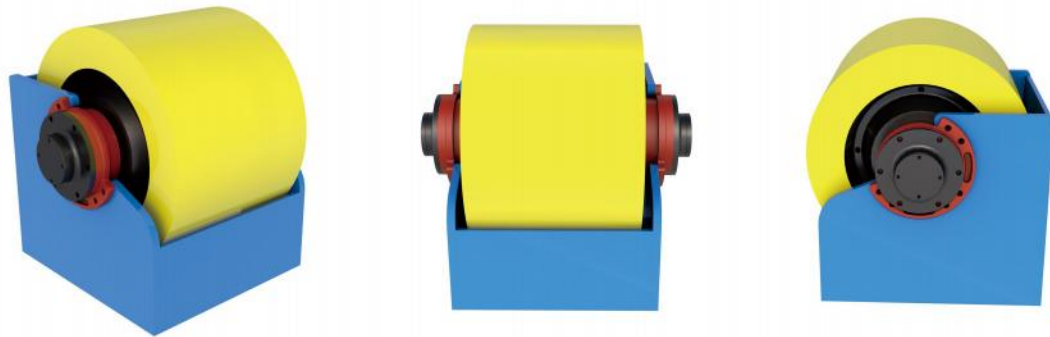
产品优势

1 ROLLER DEVICE

滚轮装置

承载工件重量的安装基础，具备足够的刚性和强度；滚轮座连接装置，可实现滚轮角度微调，滚轮均采用全包胶聚胺酯滚轮，具有较大承载能力，良好的耐磨性能。

The installation foundation that carries the weight of the workpiece has sufficient rigidity and strength; The roller seat connection device can achieve fine adjustment of the roller angle. The rollers are all made of fully coated polyurethane rollers with high load-bearing capacity and good wear resistance.



调升装置	Adjustment device
超静音设计	Ultra quiet design
较大承载能力	Large carrying capacity
耐磨性高	High wear resistance
滚轮转动灵活	The roller rotates flexibly
内置行星减速机	Built in planetary gearbox
优质轴承	High quality bearings

ADVANTAGES

产品优势

2 PLANETARY REDUCER

行星减速机

由太阳轮、行星轮、行星架、内齿圈四大基本构建组成。广泛兼容性与适应性、卓越的性能、强大的扭矩传递能力、安全可靠的设计、体积小，自重轻，扭矩大、耐冲击、免维护设计、市场认可与广泛应用、成本优势。

It consists of four basic components: sun gear, planetary gear, planetary carrier, and internal gear ring. Wide compatibility and adaptability, excellent performance, powerful torque transmission capability, safe and reliable design, small size, light weight, high torque, impact resistance, maintenance free design, market recognition and wide application, cost advantage.



行星减速机	Planetary reducer
传动效率高	High transmission efficiency
传动比精确	Accurate transmission ratio
结构紧凑	Compact
承载能力强	Strong carrying capacity
运转平稳、噪声低	Smooth operation and low noise
免维护	Maintenance-free

ADVANTAGES

产品优势

3 WHEEL SET

车轮组

运转平稳，传动效率高，结构紧凑，拆装方便，承载力高，寿命长，可与传统式车轮组直接互换。利用车轮内腔，可将行星减速器完美嵌入到车轮内部，可在车轮末端增加编码器、超速开关等零部件，可适配变频电机、伺服电机等。具体根据客户需求定制。

Smooth operation, high transmission efficiency, compact structure, easy disassembly and assembly, high load-bearing capacity, long service life, and can be directly interchanged with traditional wheel sets. By utilizing the inner cavity of the wheel, the planetary reducer can be perfectly embedded inside the wheel, and components such as encoders and overspeed switches can be added at the end of the wheel, which can be adapted to variable frequency motors, servo motors, etc. Customized according to customer needs.



车轮组	Wheel set
运转平稳	Smooth operation
承载力高	High bearing capacity
耐磨损与长寿命	Wear resistance and long lifespan
模块化设计	Modular design
轻量化设计	lightweight design

ADVANTAGES

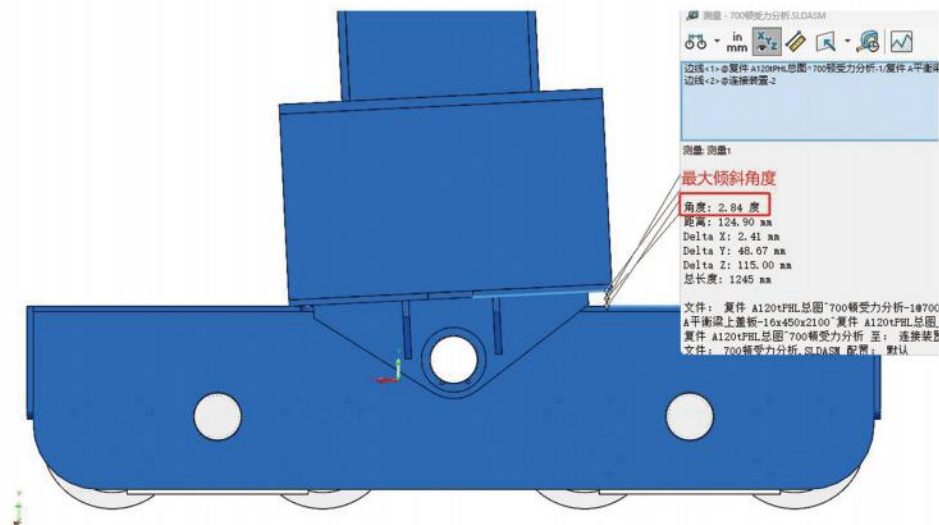
产品优势

4 CONNECTION DEVICE

连接装置

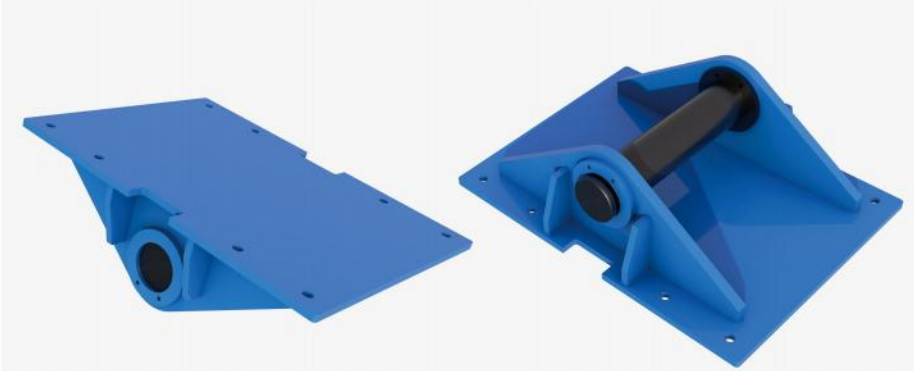
它是连接“滚轮支撑单元”与“机架端梁”的铰接式部件，主要作用是实现滚轮支撑单元的角度微调，让滚轮能更好地贴合非标准圆筒（如锥体、分段不等径工件）的曲面，避免工件支撑时的局部应力集中。该连接装置的最大倾斜角度为2.84度。既保证了结构的承载刚性（避免倾斜后强度不足），又能覆盖重型大型工件（如大直径罐体、风电塔筒）的曲面适配需求。

It is a hinged component that connects the "roller support unit" and the "frame end beam". Its main function is to achieve fine adjustment of the angle of the roller support unit, so that the roller can better fit the curved surface of non-standard cylinders (such as cones, segmented workpieces with different diameters), and avoid local stress concentration during workpiece support. The maximum tilt angle of the connection device is 2.84 degrees. It not only ensures the load-bearing rigidity of the structure (avoiding insufficient strength after tilting), but also covers the curved surface adaptation requirements of heavy and large workpieces (such as large-diameter tanks and wind turbine towers).



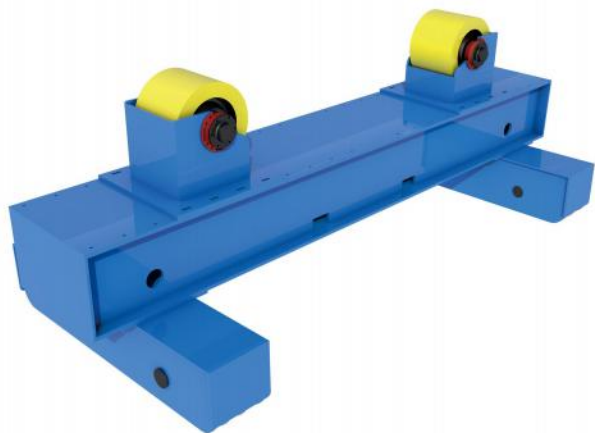
连接装置

Connection device



ADVANTAGES

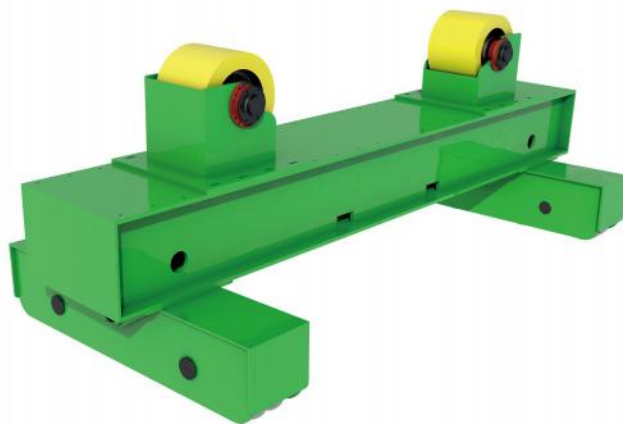
产品优势



◆ Structure Design

结构设计

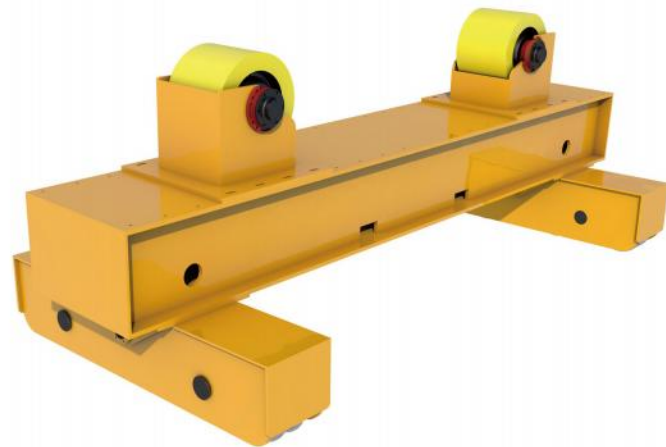
加厚型钢焊接+消应力处理，刚性强、承载力稳，避免重载下变形，同时底部预留安装孔，便于固定或对接生产线。钢芯外包高硬度聚氨酯，既保证耐磨，又能缓冲减震、不划伤工件表面。



◆ Performance Performance

性能表现

满足重型罐体、管道等的支撑需求。采用高精度轴承，工件旋转无颤抖、无爬行，保障焊接 / 加工精度。聚氨酯胶轮耐油、耐磨损，更稳定。



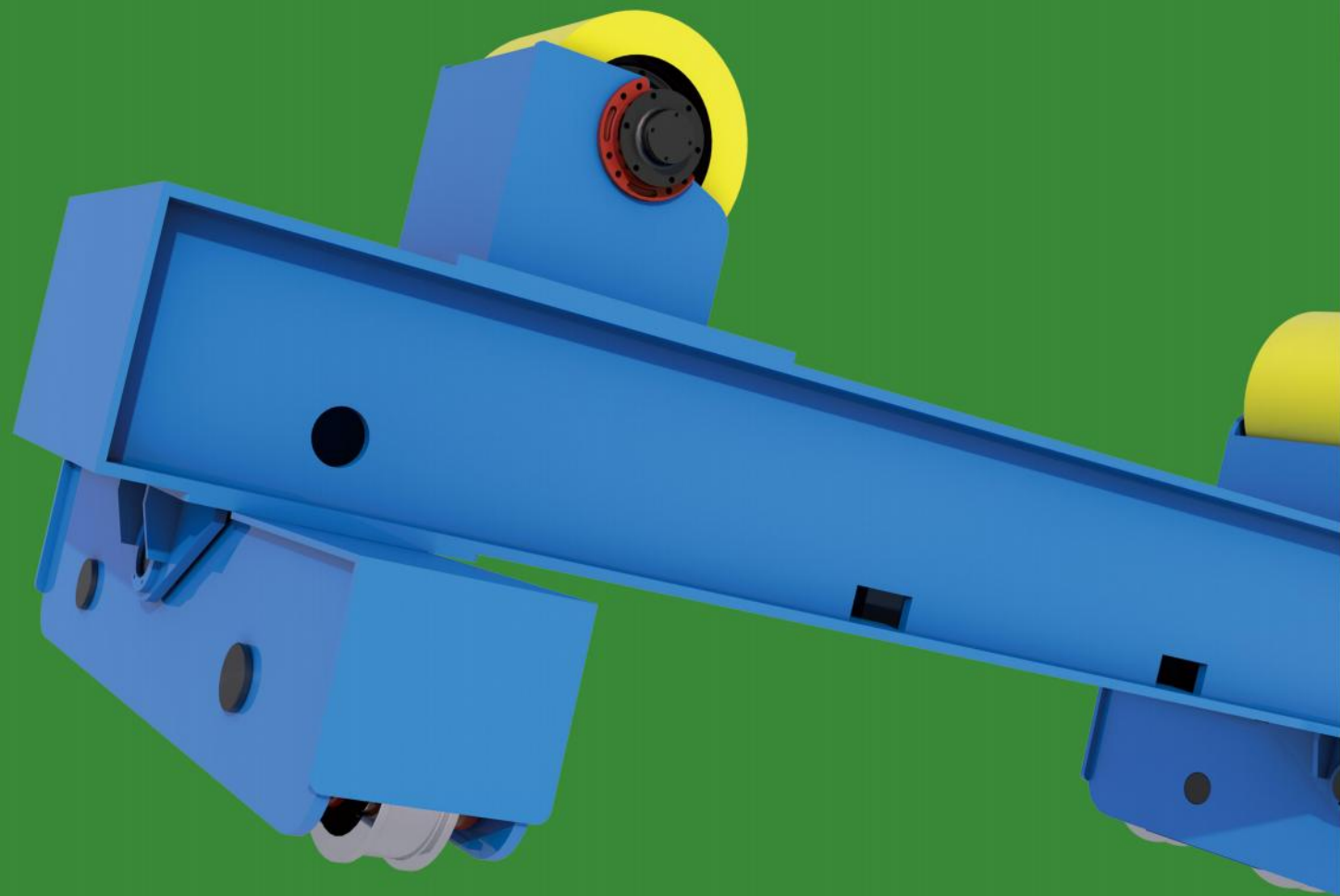
◆ Application adaptation

应用适配

多工序场景覆盖，能对接焊接、装配、无损检测等工序，是压力容器、风电塔筒、长输管道等工件的核心辅助设备。可移动设计能快速切换到焊接、检测等不同工位，适配产线的柔性生产需求。机架和组件的防护设计，能适应车间粉尘、振动等恶劣环境，长期用故障率低。

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◆ BEFORE SERVICE

售前服务

免费为用户提供技术咨询服务；向用户提供产品样本，企业简介，资信证明等资料；诚邀至我司考察产品设计、工艺流程和质量管理体系；委派技术人员根据现场情况和用户需求进行设计、选型。

◆ IN SALES SERVICE

售中服务

产品制造过程中，用户相关人员可到我公司监察制造过程中各个工序；向用户相关人员提供产品全流程制造检验标准和制造检验结果。

◆ AFTER-SALE SERVICE

售后服务

结合用户需求进行培训，及时改进产品；坚决执行产品“三包”服务政策；对客户来电来函信息8小时内处理完毕答复，服务工程师24小时待命制，离开现场需客户许可；批量订单业务，提供为期三个月保姆式跟踪服务。





河南·长垣

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