



**空冷岛专用驱动应用推介**  
**AIR COOLED CONDENSER**  
**DRIVE SYSTEM INTRODUCTION**

**杭州杰牌传动科技有限公司**  
**HANGZHOU JIE DRIVE TECHNOLOGY CO.,LTD.**



CONTENT

一 杰牌简介 *Brief introduction of JIE*

二 产品与技术 *Products and technology*

三 杰牌服务 *JIE service*

四 产品应用 *Product application*

五 合作展望 *Cooperation prospect*

## ■ 杰牌传动简介 Brief introduction of JIE



Established in 1988, mainly work on transmission and construction machinery.



**JIE 杰牌传动**  
ASIADRIVE JIE ASIA DRIVE

**COMANSA JIE**  
科曼萨·杰牌建机

**JIE 杭州杰牌传动科技有限公司**  
ASIADRIVE HANGZHOU JIE DRIVE TECHNOLOGY CO.,LTD.

因专业 而杰出  
Excellence from Expertise

## ■ 杰牌传动简介 Brief introduction of JIE



Our worm drive famous for its professional research, develop and design for worm reducers, which comply to modular design and low carbon concept, aim to forge JIE as China first class “accurate transmission” manufacture base.

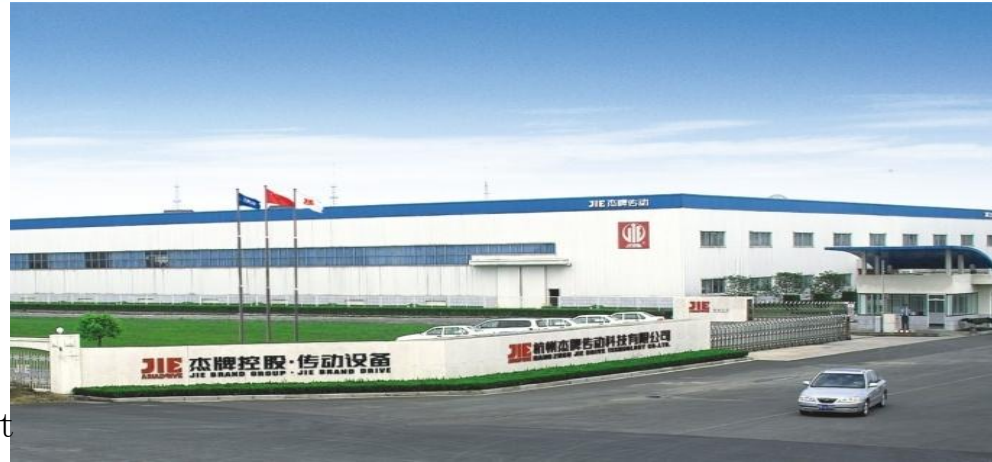


- WP series worm reducer, JRST universal installation worm gear reducer, JRSS series worm gear linear actuator

## ■ 杰牌传动简介 Brief introduction of JIE



Our gear drive famous for its professional research, development and design for helical gear motor. We bring in the European and American technology, we have the world class production line and inspection line. The products comply to modular design and low carbon concept, aim to forge JIE as China first class “intelligent transmission” manufacture base.



■ JRT series helical gear motor, JRH series standard gear unit, JRP series planetary gear unit

## ■ 杰牌传动简介 Brief introduction of JIE

Our worm drive famous for its professional research, development and design for energy saving and high efficient motor. We introduce absorb frequency and servo drive technology, working for high efficient and energy saving concept, aim to forge JIE as China first class “electric transmission” manufacture base.



■ mainly produce three phase asynchronous motor currently, but we are developing the frequency motor, servo drive motor and controller, so that transmission, drive and controller can be integrated.

# ■ 杰牌传动简介 Brief introduction of JIE



## Technical data scope

Input power: 0.06-5086KW Ratio range: 1-23401

Output torque: 1.4-345000Nm



JRT series

1.4-62800Nm



WP series

6-6050Nm



JRTM series

11.2-5713Nm



JRSS series

500 -26050kg



JRST series

7-1788Nm



JRP series

8000-100000Nm



JRH series

6100-345000Nm



JD series motor

0.12 - 200KW

JRT series



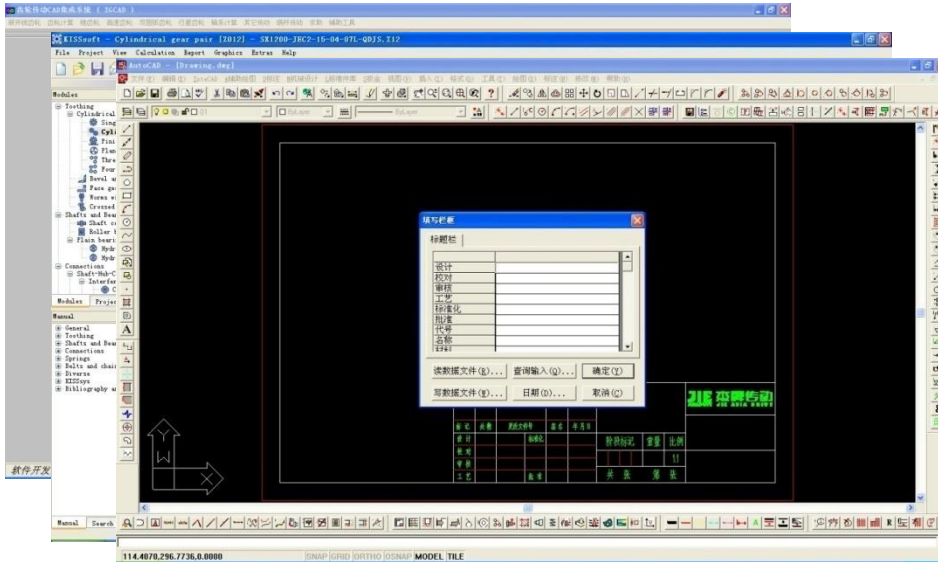
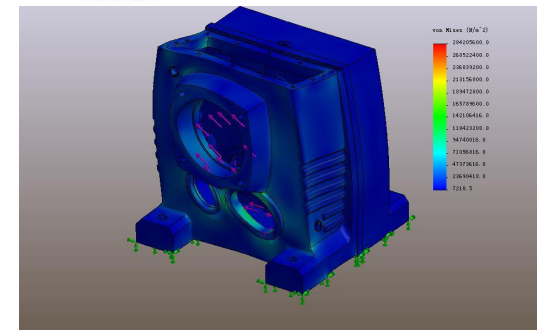
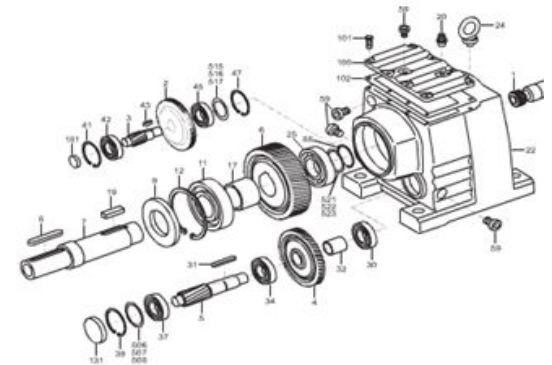


JRH series



# 产品与技术 Product and technology

- Modular, uniform strength, long-life fatigue design concept.
- comply to advanced international standard-ISO6336、ISO10300、ISO1328;
- SIMULATION finite element analysis, SOLIDWORKS 3D design and simulation of mechanism motion, own design software.
- Invention patents, utility model patents, appearance patents, more than 30 patents
- 3D design and CAE analysis



## ■ 产品与技术 Product and technology

Housing process line :

- patent appearance, compact and beautiful.
- Resin sand metal mold precise casting technology, ensure the strength and prevent the leakage
- Processing of housing completed in a single setup, use OKUMA 、 MITSUBISHI、 DAEWOO imported CNC machine center, ensure the accuracy.
- Phosphate wash for housing, clean the filings, and prevent the rust.



## ■ 产品与技术 Product and technology

Gear process line :

- Preheating process for gear and gear shaft.
- carburizing and quenching, the low carbon steel to make the gear and gear shaft
- Ensure accuracy by using Korea DAEWOO turning center, CNC gear hobbing machine, Germany HOFLER CNC forming gear grinding machine (Hofler RAPD 1250)
- modification, noise reducing technology for gear
- Phosphate wash for cleanness and anticorrosion.



## ■ 产品与技术 Product and technology



Thermal treatment process line :

- Preheating process , ensure the material stability ;
- Adopt Austria AICHELIN totally sealing multi-purpose heating treatment, ensure the hardness and strength, control the deformation ;
- Blasting technology, improve the strength and improve the Tooth root bending strength by more than 20%



## ■ 产品与技术 Product and technology

Assembly line and painting line :

- Flexible assembly.
- Circulation chained painting and drying line.
- CNC double mesh instrument to inspect every product.
- 100% online inspect.



## ■ 产品与技术 Product and technology

Measuring and inspection center:

- Housing: American BROWN&SHARP、German Carl Coordinate Measuring Machine, ensure the housing accuracy and stability.
- Gear and gear shaft: ultrasonic flaw detector, metallographic analyzer, gear inspection center, Spectro spectrometer for testing, ensure the material and accuracy.

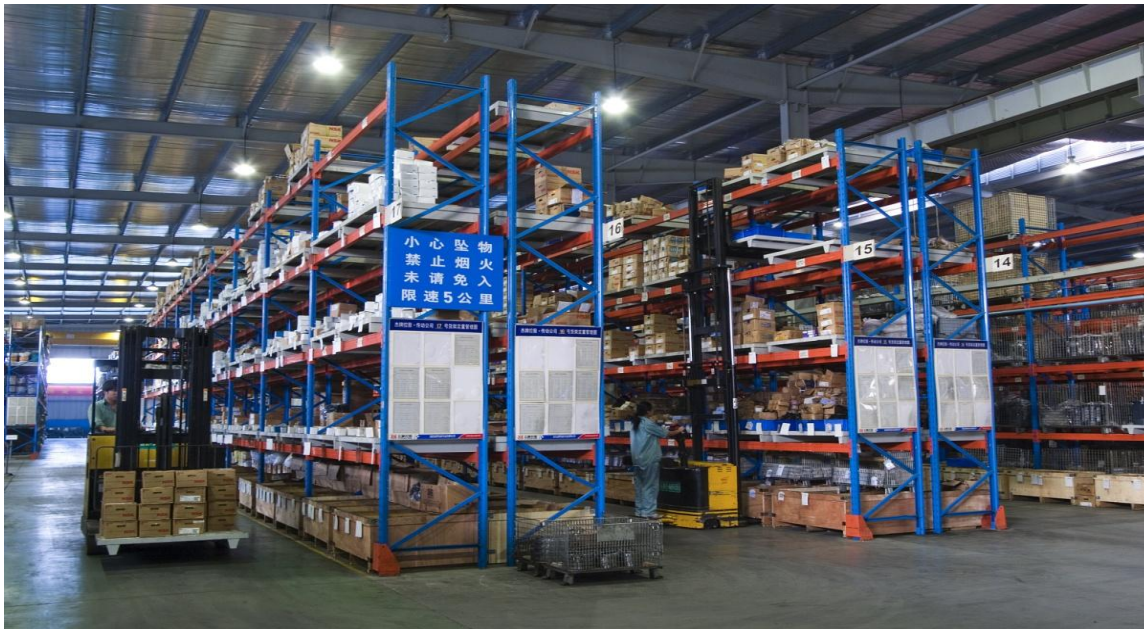


## ■ 产品与技术 Product and technology



Warehouse center:

- Total warehouse space reach 25000m<sup>2</sup>;
- ERP management, realize management for design, production, assembly and warehouse ;
- Adopt imported stacking equipment, smooth the logistics.





### JIE GEAR MOTOR AND GEAR BOX KEY TECHNOLOGY:

- 1、**Sealing property**: Improve shaft material and surface accuracy, improve seal material and adopt professional assembly technology, sealing property is highly improved.
- 2、**Reliability**: by researching the gear material and heating treatment technology, we improve the tooth profile, and will form tooth surface oil slick when mesh, which reduce the possibility of tooth surface's short period failure which improve the product reliability.
- 3、**Modular design**: by establishing gear reducer load and speed database, class the data properly, make gearbox technical data digital model, build modular gear transmission structure. Use the most advanced gear combination to realize the max range of transmission structure.
- 4、**High transmission efficiency**: According to DIN standard gear accuracy, selecting the gear data properly which realize single stage efficiency no less than 98%, two stage no less than 96%, three stage no less than 94%, four stage no less then 92%

Electric transmission



JIE electric transmission: devote to develop and make high efficiency ,high reliability motor, service to high end customer in industries like elevator, textile, tire, machine tool etc.

## ■ 产品与技术 Product and technology

- Automatic traction technology: ensure symmetry of motor's three phase, improve production efficiency.
- CNC traction technology: accurate stepping motor and driver, ensure quality of coil permutation distribution.



## ■ 产品与技术 Product and technology

### ■ Continuous vacuum soaking technology

Make sure that painting film has the same thickness, ensure the turn-to-turn insulation, realize the low carbon manufacture.



## ■ 产品与技术 Product and technology

### ■ Detection test

Adopt German Schenk dynamic balance testing desk, motor performance general purpose testing instrument, which provide testing date of electric performance such as breakdown, withstand voltage, empty load and winding & impedance.

■ Energy efficiency class : IEC60034-30、NEMA、CSA、COPANT、AS、NZA、JIS standard.



## ■ 产品与技术 Product and technology



Country approval lab, able to provide following inspection data:

- Noise
- vibration
- temperature rising
- efficiency
- load capacity
- service life



## ■ 产品与技术 Product and technology



According to customer, can provide following inspection report

- Key material test report
- Production quality test report
- whole machine function test report



### Special Equipment Type Test Report

Report No. T3-B3B-09-014

Category of Equipment: Major Component  
Type of Equipment: Escalator or Moving Walk Drive Machine  
Name of Product: Escalator Drive Machine  
Model of Product: JR TK87FT  
Applicant: Hangzhou Jiepai Drive Technology Co., Ltd.  
Manufacturer: Hangzhou Jiepai Drive Technology Co., Ltd.



National Elevator Inspection and Testing Center

报告编号: 3J10079 Reference No.:	
<b>检 验 报 告</b> <b>Test Report</b>	
产品名称 Name of products	减速器
型号规格 Type & specification	JRHB3SH5-50-D
受检单位 Inspected consigner	杭州杰牌传动科技有限公司
检验类别 Kind of test	2010年第二季度浙江省产品质量 监督抽查
浙江省机电产品质量检测所 ZHEJIANG TESTING & INSPECTION INSTITUTE FOR MECHANICAL AND ELECTRICAL PRODUCTS QUALITY	

## ■ 客户服务 Customer service



- ★ application industries
- ★ metallurgical machinery, escalators and elevators, construction machinery, textile and dyeing, machine tool equipment
- ★ electrical machinery, food machinery, wood-working machine, environmental protection machine, lifting machine
- ★ coal mine machinery, petrochemical industry, warehouse logistic, construction material, stage machine
- ★ engineering machinery, cement machinery, metallurgical mine, printing machinery, road construction machine



## ■ 部分典型客户 Some typical clients



■ 部分典型客户 Some typical clients



## ■ 客户服务 Customer service



- 北京大区 Beijing
- 上海大区 Shanghai
- 广州大区 Guangzhou
- 沈阳大区 Shenyang
- 太原大区 Taiyuan
- 西安大区 Xian
- 武汉大区 Wuhan
- 杭州大区 Hangzhou



# ■ 客户服务 Customer service

- R&D center 1
- production factory 3
- Assembly factory 2
- Proposed assembly factory
- Sales and service center 72



## ■ 客户服务 Customer service



## ■ 客户服务 Customer service



Netherlands  
Rotterdam ASIA  
DRIVE factory



## ■ 客户服务 Customer service



### 杰牌传动销售服务中心 JIE DRIVE SALES SERVICE CENTER



Netherlands



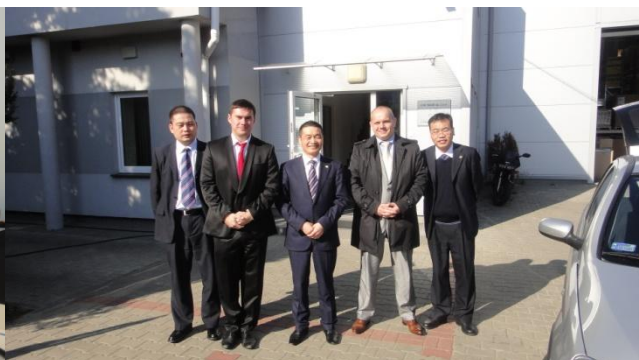
Turkey



Brazil



USA



Russia



France

## ■ 客户服务 Customer service

- Technology support professional senior engineer and after sale engineer offer comprehensive before-sale, during-sale, after-sale service.
- Service response:  
Response within 2 hours upon receipt of customer's apply, or execute according to agreed solution by both sides. The supplier will offer solutions for the quality issues.
- Quality guarantee:  
18 month quality guarantee after deliveries or 12 month after using, the early date will be the beginning of valid period. The supplier will offer solutions for the quality issues.
- Service commitment:  
Service, Repair, Replace under no condition; Afford under condition.

**服务热线: 400-114-1111**



## ■直接空冷系统专用驱动应用

Direct air cooling usage drive system application

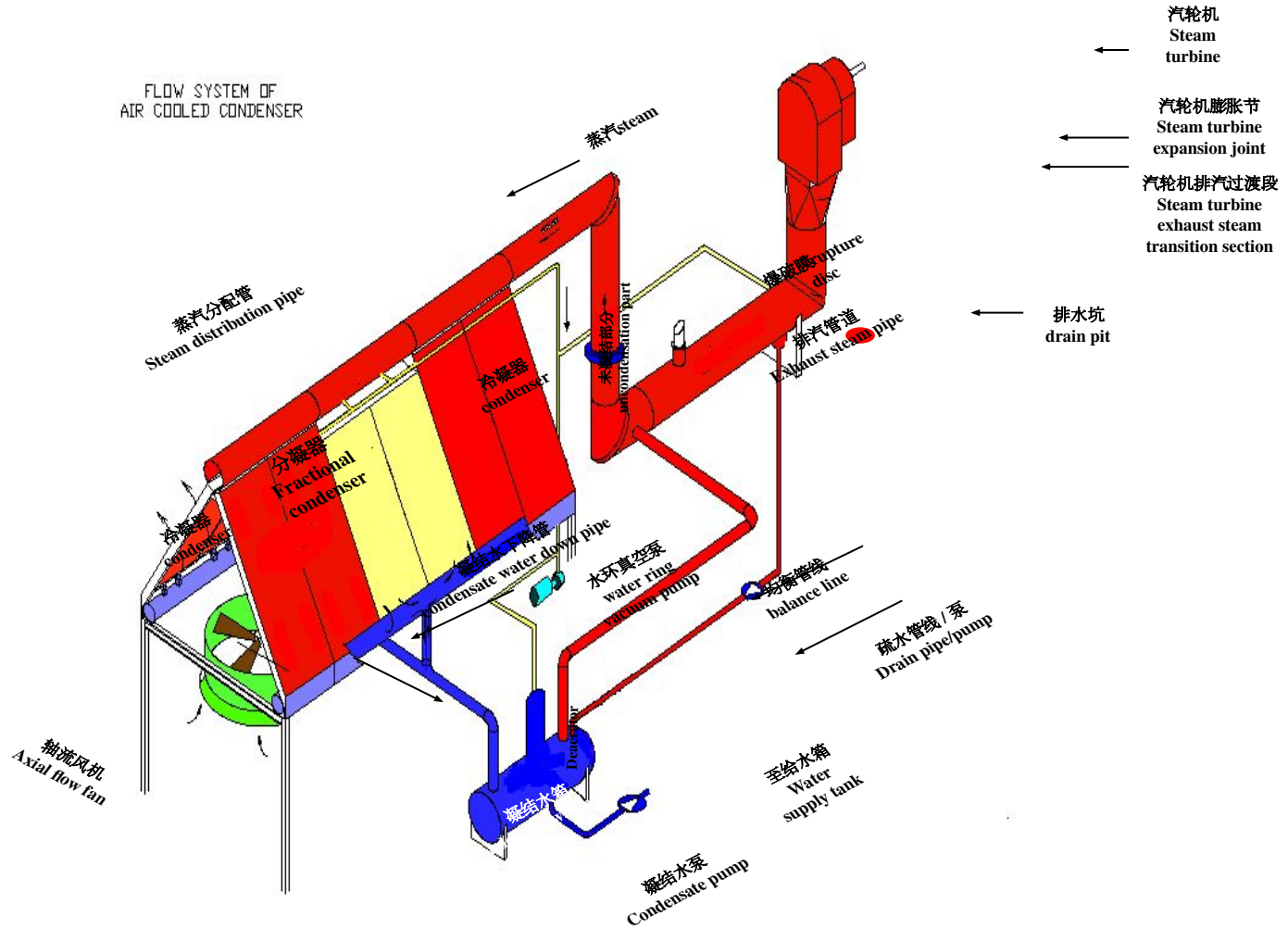


### Product advantage:

- \* Ratio range 9~25, rated torque range 21~66KN.m
- \* Exclusive usage one-piece integrated housing
- \* Internal pipe lubricate system
- \* Automatic monitoring (oil temperature, oil level, vibration...), oil heating control system
- \* Easy and safe brake system
- \* Dry well low speed draft seal and non-contact type high speed draft seal

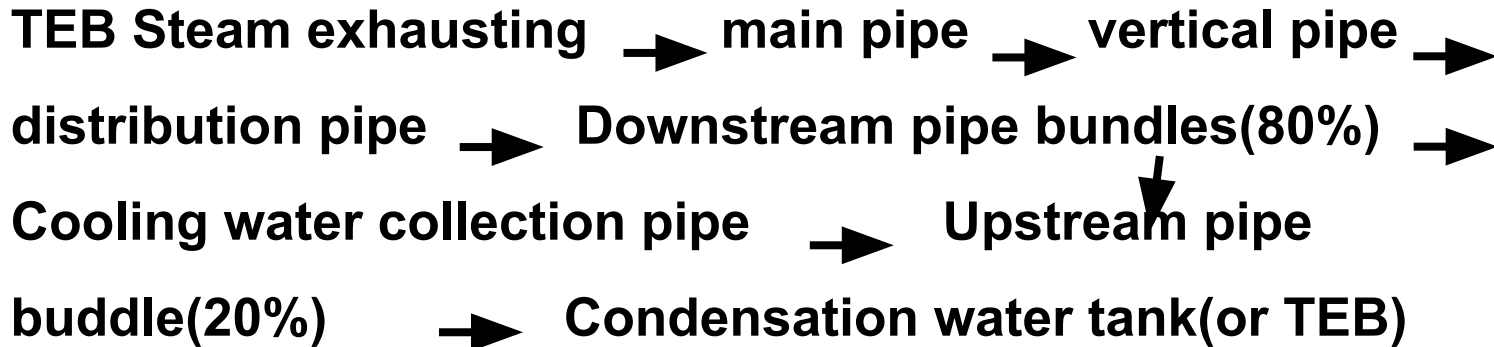
# 直接空冷系统工作原理

## Direct air cooling system working principle



## ■直接空冷系统工作原理

### Direct air cooling system working principle



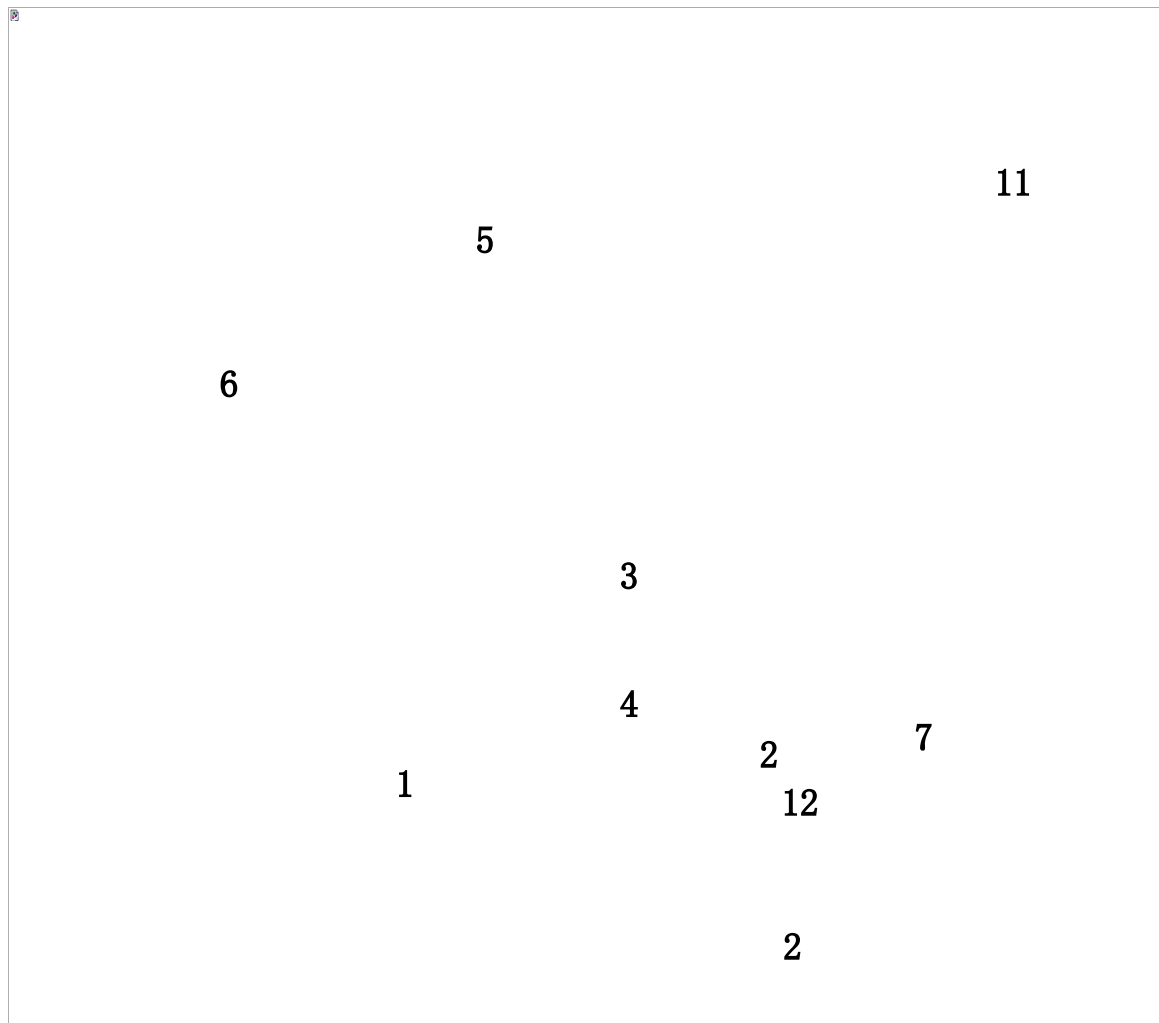
In a simple word, the cooling principle is the same as the primary cooling tower in the power plant, both are used for heat dissipation, but air cooling system saves more water than cooling tower. Air cooling system is common used at water deficient area. It is just like a big car water tank. Fan is used to dissipate the heat, but without evaporate the water.

# ■直接空冷系统的模块

## Direct air cooling system module

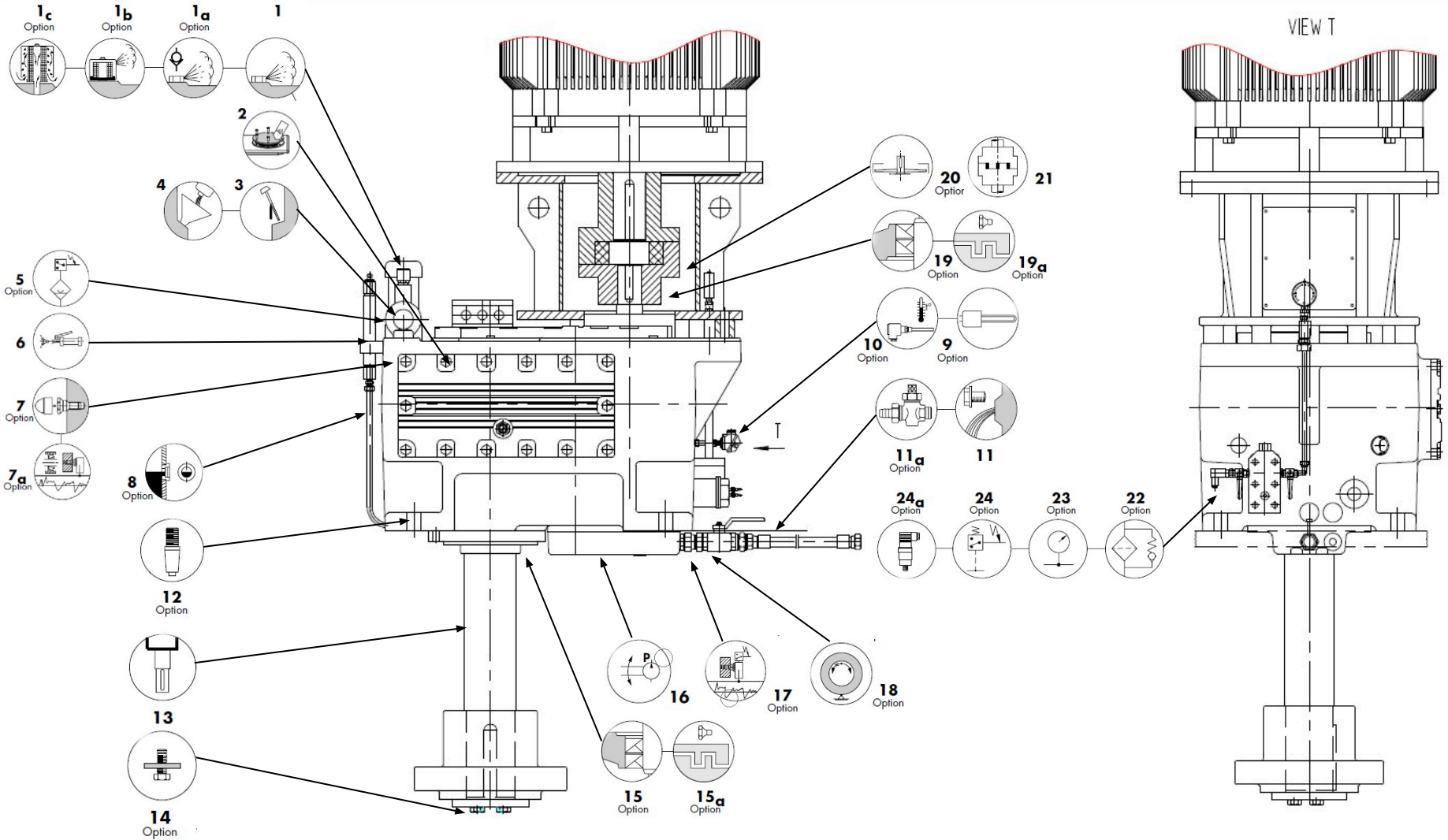


- 1 Substructure, stand column, grid.
- 2 Modular grid
- 3 Fan cover board
- 4 Ventilator(distribute the air, lower the suction effect at the entry of the fan )
- 5 Fan support beam, including guard bar, motor, gearbox and fan hub.
- 6 Full structure pipe buddle
- 7 Joint part of cooling water collection pipe
- 8 Wind break wall frame
- 9 Wind break wall side plate
- 10 Full set of wind break wall
- 11 Steam distribution pipe with weld edge and entry hole
- 12 Cooling water collection pipe



# ■直接空冷系统专用减速机外形结构图

## Direct air cooling system usage gearbox outline structure drawing



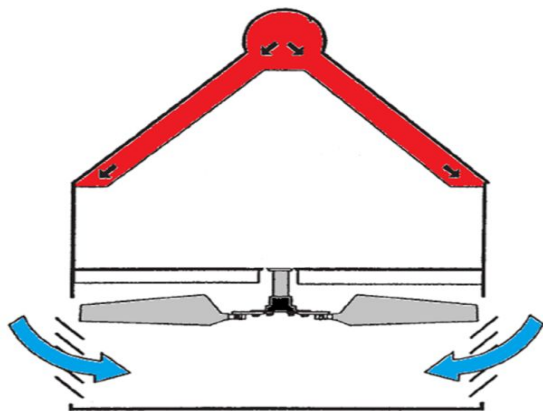
# ■ ACCESSORIES LIST



1	breather plug or	8	oil sight glass	17	vibration switch for condenser fan
1a	anti-humidity breather plug or	9	heater	18	built-in backstop, accessible after removal of motor lantern
1b	dust-proof breather plug or	10	Pt 100 meter for oil sump temperature	19	double oil seal or
1c	special breather with anti-humidity filter	11	draining plug	19a	regreasable labyrinth (DIN 71412)
2	gear unit inspection cover	11a	drain cock with hose coupling	20	axial fan
3	dipstick with magnet	12	mounting pin	21	standard elastic block-type coupling
4	oil filler plug	13	extended low speed shaft end	22	oil filter
5	oil level switch	14	thrust washer with bolt	23	pressure gauge
6	grease point (DIN 71412)	15	double oil seal or	24	pressure switch or
7	SPM nipple or	15a	regreasable labyrinth (DIN 71412)	24a	pressure transmitter
7a	vibration sensor	16	pump lubrication		

# ■直接空冷系统专用减速机附件

## Direct air cooling system usage gear unit accessory



压力开关  
Pressure switch



逆止器  
backstop



电加热器  
Electric heater



震动传感器  
Vibration sensor



铂电阻  
Platinum resistor



压力表  
Pressure gauge

## ■产品亮点 Product feature



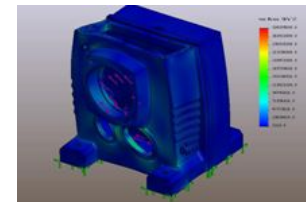
SKF/FAG轴承  
SKF/FAG bearing



润滑系统改造  
Lubricate system improvement



轴承安装工装  
Bearing installation



箱体有限元分析  
Finite element analysis of housing



耐磨衬套  
Wearproof bush



CFW油封  
CFW SEAL



轴系对中  
Shaft alignment



## ■产品亮点 Product feature



The parallel gearbox and its bearing are designed to consider continuous unbalanced force and radius rotational motion unbalanced force. Once the fan blade fails, fan will lower the speed until stop. This force only exists in a very short time. Low speed shaft uses dry well seal, and its bearing use grease to lubricate.

Bearing on the upper side of the gearbox uses an oil pump for lubrication which is protected by pressure switch. Lubrication is inspected by Pressure switch, which is set in the lubrication pipe.

A outside oil gauge is set above the gearbox to control the oil lever and can easily access from maintenance platform.

Pressure gauge, electric heater, vibration sensor and PT100 platinum resistor are also provided.

## ■应用案例 Application case



## ■现场安装 Field installation



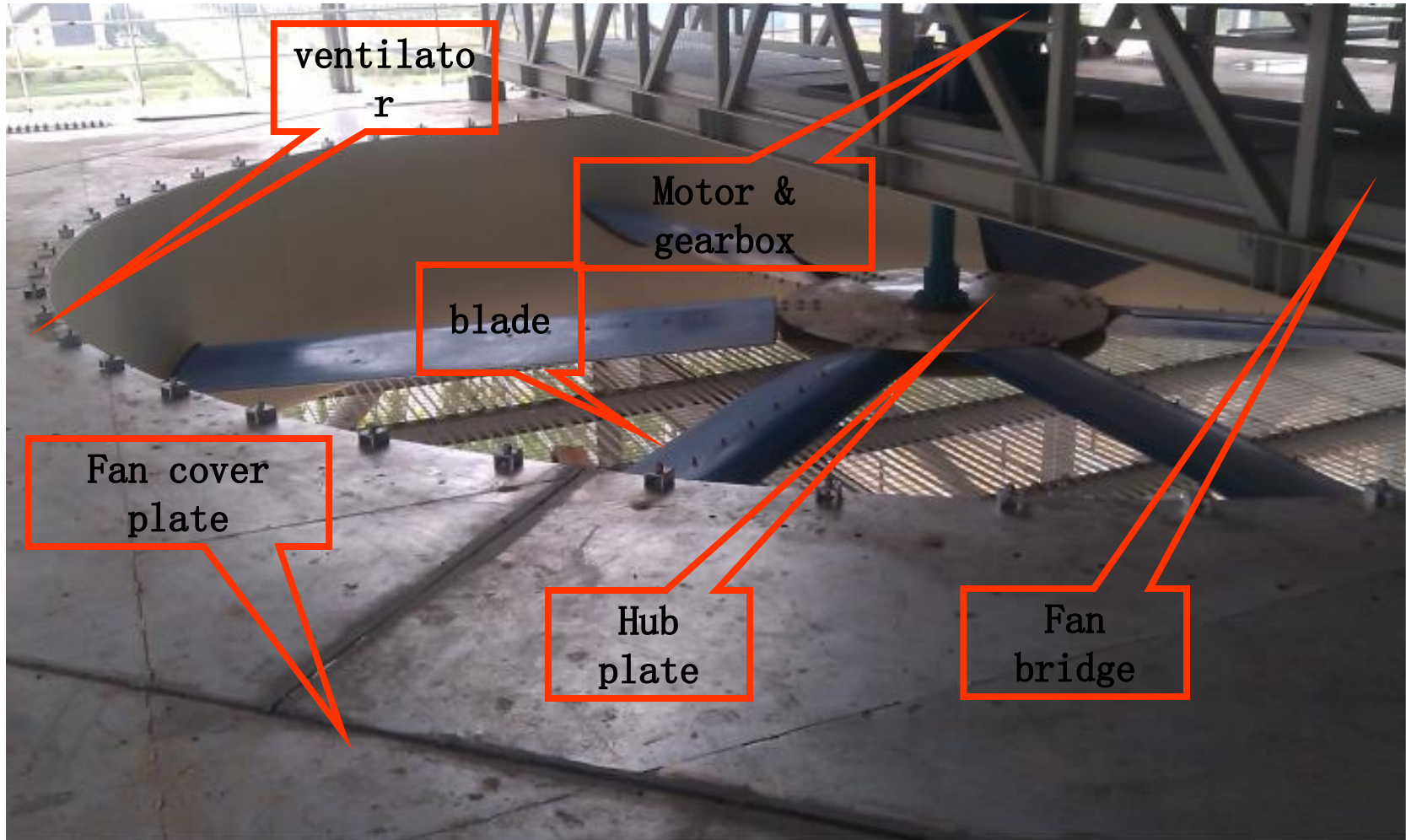
Prepare the temporary support before assembly, height 2m.

Put motor beam on the support, then install motor, gearbox onto the motor beam.

Install the hub plate

Install the blade in order as required

## ■安装完毕 Finish installation

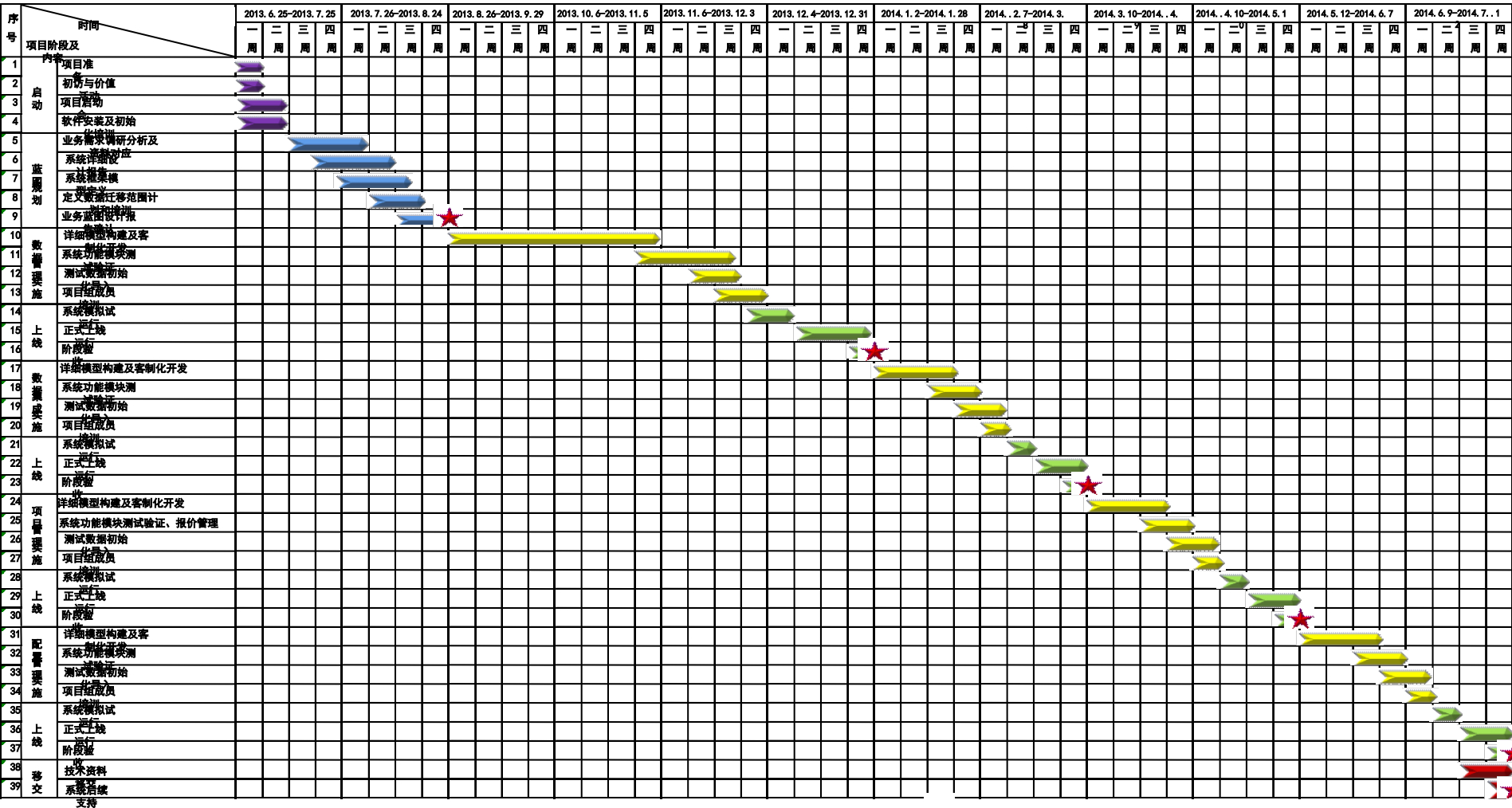


# ■ 延伸应用案例 -- 冷却塔专用驱动 Extended application case- cooling tower usage drive



# 合作展望---PDM里程碑计划

## Cooperation prospect- PDM millston plane



1. Project preparing and requirement confirmation
2. Exchange visits
3. Start project: Business confirm, technology confirm
4. Start production:  
design-technology-quality-assembly (submit process at regular interval)
5. Internal inspection
6. Third party inspection
7. Finish production, delivery
8. On-site training and commissioning
9. Customer confirm, after sale revisit regularly



整体传动解决方案供应商

supplier for whole transmission solution

谢谢，欢迎提问！

Thank you!

Welcome any questions.