

【国机集团国际化经营系列丛书】

SINOGRACH

国机制造

R&D AND MANUFACTURE

(2019版)

第三卷

中国农机院



国机制造
R&D AND MANUFACTURE

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中国农业机械化科学研究院

China Academy of Agriculture Mechanization Sciences

公司名称：中国农业机械化科学研究院

Company Name: China Academy of Agriculture Mechanization Sciences

<http://http://www.caams.org.cn>

中国农业机械化科学研究院（以下简称“中国农机院”）成立于1956年，1999年整体转制为中央直属科技企业，是以自主创新为核心竞争力、以高端农机产品制造为主体，集科、工、贸，产学研为一体的现代高科技制造企业集团。业务涵盖了现代农业装备、畜牧业装备、农产品与食品加工装备、可再生能源装备、军工与特种装备、勘察设计与工程施工以及信息传媒7大领域，是国家首批创新型企业 and 高新技术企业。

中国农机院建有1个国家重点实验室，2个国家工程实验室，拥有2个国家级工程技术研究中心，设有农机具、食品机械和试验机3个国家级质量监督检验中心，是国家农业装备产业技术创新战略联盟、食品装备产业技术创新战略联盟和首都生物质能产业创新战略联盟理事长单位。

从完善技术创新链和延伸产业发展链的角度系统部署实施，建成了以国家重点实验室为支撑的技术核心层、以国家工程技术研究中心为依托的技术转化层、以产业技术创新服务平台为中心的技术辐射层以及以产业技术创新战略联盟为纽带的产学研联合攻关机制的“四位一体”技术创新体系，实现了科技支撑产业、产业回馈科研的良性循环。逐步完善了高端装备制造产业基地和市场格局。形成了分布全国东、西、南、北、中的五大产业园区、十二个产业基地和一个物流科技园，研发制造了一批具有高技术附加值的产品，从收获机械到耕作机械，再到植保和节水机械，生物质能源和农产品加工等，向社会提供3000多种农机产品。

中国农机院打造了以国际合作与交流为载体，技术输出去、产品走出去的国际化发展平台，与国外40多个学术团体、国际组织以及80多个国家的科研机构和企业有着广泛交流与合作。是国务院首批博士、硕士学位授予单位，设立了博士后科研工作站，具有学科门类齐全，研究、设计、生产经验丰富的专业队伍。

Chinese Academy of Agricultural Mechanization Sciences (CAAMS), founded in 1956, was transformed into an S&T enterprise directly under the leadership of central government in 1999. It is a modern high-tech manufacturing enterprise group with the self-innovation as the drive and high-end products manufacturing as the main business, integrating science, industry and trade. The business scope of CAAMS covers seven areas of modern agricultural machinery, agro-products (food) processing and packaging machinery, renewable energy equipment, special equipment, exploration, engineering design and construction, and media. It is one of the first innovative and hi-tech enterprises in China.

CAAMS has one national-level key laboratory, two national engineering laboratories, two national engineering technology research centers, three national quality supervision and testing centers for agricultural machinery and tools and food machinery. It is the chairman unit of Technology Innovation Promotion Alliance for Agricultural Machinery Industry (TIPAAMI), Technology Innovation Promotion Council for Food Machinery Industry (TIPCFMI) and Capital Technology Innovation Promotion Alliance for Biomass Energy Industry (CTIPABEI) respectively. For improving the technological innovation chain and extending the industrial development chain, the implementation was systematically arranged and the four-in-one technological innovation system was built. The system has the characteristics of the following four points: Level of technological core with national key laboratories as the support; level of technological transformation with National Engineering Technology Research Center as the backup; level of technology extension with industrial technology innovation and service platform as the center, and with the joint mechanism of manufacturers, universities and research institutes linked by the Technology Innovation Promotion Alliance. With gradually improved high-end equipment manufacturing industry bases and market pattern, CAAMS has formed five industrial zones, twelve industrial production bases and one logistics technology park in the east, west, south, north and center of China where a number of products are manufactured with hi-tech and high value-added products, supplied over 3000 agricultural mechanical products to the society from harvesters to farming machinery, plant protection and water saving machinery, biomass energy and agriculture products processing machinery, etc.

CAAMS has created an international development platform with international cooperation and communication as the carrier

communication and cooperation with over 40 foreign academic societies, international organizations and technological research institutions and enterprises in over 80 countries. CAAMS is one of the first institutions to grant doctor and master degrees, set postdoctoral research working station which has a professional team with complete academic disciplines as well as the rich experience in research, design and manufacturing. for technology and products export, established extensive

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1 农业装备 1 Agricultural Equipment

1.1 耕整种植机械 1.1 Cultivator and planting series

1.1.1 1LFT-435 翻转调幅铧式犁 1.1.1 1LFT-435 mounted Reversible Ploughs



产品简介

本机具适用于我国华北、东北、西北等地区大块田地翻耕作业。可用于熟地或生地作业，具有翻垡、碎土、覆盖性能好、阻力小、前进速度快、使用寿命长等特点，节油效果显著。机具采用压力式控制阀技术，犁体翻转平稳，对拖拉机无冲击，适合与不同轮距拖拉机配套。

Product Introduction

1LFT-435 mounted Reversible Plough applies to the tillage operations in the large plot field. Machine is good for either cultivated or virgin land, it is to upturn soil, pulverize, covering earth, it is with less resistance, fast moving, long-shelflife, and fuel efficiency significantly. A hydraulic valve Control the plough to smooth the reversing plough, it enables plough to match various track of tractors in right range of power demand.

主要技术参数

Specifications

项目 Item	单位 Unit	数值 Figures
外形尺寸 Size	mm	4750 × 2500 × 1740
重量 Weight	kg	1200
工作幅宽 Work Width	cm	120-180 (Adjustable in 4 levels 四级可调)
单铧设计幅宽 Coulter Width	cm	35
耕地深度 Work Depth	cm	20 ~ 35
犁梁离地间隙 Beam Clearance	cm	87
犁体间距 Space of Plough Coulter	cm	95
配套动力 Matched Power	HP/kW	≥ 100/73.5
作业速度 Speed	km/h	5 ~ 9

1.1.2 1SL-250 深松整地联合作业机

1.1.2 1SL-250 Mounted subsoiler



产品简介

1SL-250 深松整地联合作业机适用于我国北方地区熟地土壤深松作业，一次可以完成深松、地表灭茬、碎土、平整工作，达到作物种植床农艺要求。该机具形成深松断面质量高，地表细碎平整，表层覆盖性良好，有良好的土壤保墒效能，避免了对土壤的多次压实；作业效率高，综合油耗少，并能更好地保证作物及时播种，对作物增产有很大作用；采用三点悬挂机构与主机联接，操作灵活、方便，是一种先进、高效的新型农具。

Product Introduction

1SL-250 mounted subsoiler are suitable land preparation in deeper soil layers, which completes soiling, surface stubble, pulverize, fine flat, ready for bed requests, it is able to conserve soil moisture, avoided repeatedly compact soil; less fuel consumption, high efficiency, to make a on time sowing, it is flexible in vusing by three-point hitch linkage to the tractor.

主要技术参数 Specifications

项 目 Items	单位 Unit	数 值 Figures
外形尺寸（长×宽×高） Size	mm	2300×2630×1470
整机结构质量 Weight	kg	770
工作幅宽 Work Width	cm	250
配套动力 Matched Power	HP	120
运输间隙 Transport Clearance	mm	270
深松深度 Chisel Depth	cm	20-35
深松铲个数 Tines Number	个	5
作业速度 Speed	km/h	4.0-6.0
生产效率 Efficiency	hm ² /h	0.7—1.2
挂接方式 Linkage		Ⅱ类三点悬挂 Three Point Mounted

1.1.3 2BFMG-1626 分体式种肥分施免耕播种机

1.1.3 2BFMG-1626 No-Till Air Suction Seeder



产品简介

2BFMG-1626 免耕施肥播种机为分体式种肥分施免耕播种机，适用于干旱、半干旱地区大块土地，适宜免耕施肥播种小麦、大麦、油菜等条播作物，是实现农牧业保护性耕作较为理想的机型。该机具作业不需耕翻土地，一次完成破土、切断秸秆或根茬、开沟、施肥、播种、覆土、镇压等作业。在秸秆较多的情况下有良好的入土性能和良好的通过性能，该机作业质量良好、生产效率高，节约生产成本，又能保护改善生态环境。

Product Introduction

No tillage fertilizer seeder 2BFMG-1626 is applicable to the arid, semi-arid areas large tracts of land suitable for no-tillage sowing for wheat, barley, canola and other drilling crops. The seeder is able to clean trash, to open ditching, to seeding and fertilize, to cover soil, to repress & compact the soil at one performance. The seeds placed well in field of the trash remained. It is obvious in efficiency, economic, energy saving.

主要技术参数 Specifications

项目 Item	单位 Unit	数值 Contents
外形尺寸（长×宽×高） Size	mm	6000×5200×2300
结构重量 Weight	kg	5500
运输间隙 Transport Clearance	mm	> 200
工作行数 Rows	Rows	26
行距 Row Space	mm	160
工作幅宽 Work Width	m	4.16
开沟播种深度调节范围 Plant Depth Scale	cm	1~8
种子箱容积 Seed Hopper Capacity	L	920
肥料箱容积 Fertilizer Hopper Capacity	L	1200
最大排种量 Max. Seed Rate	kg/hm ²	900
最大排肥量 Max. Fertilizer Rate	kg/hm ²	590
配套动力 Matched Power	kW	≥88.2
作业速度 Speed	km/h	5~9
生产率 Efficiency	hm ² /h	1.38~2.45

1.1.4 2BMC-12 牧草精量播种机

1.1.4 2BMC-12 Integrating Precision Seeder



产品简介

2BMC 系列牧草精量播种机是专门为退耕还草、防风固沙、发展草业而开发研制的产品，吸收国外苜蓿播种机精密排种的优点，结合我国干旱、半干旱地区的实际情况，是我国当前牧草、苜蓿、油菜、芝麻等小粒种子条播的理想机具。应用微型控制式密齿排种器，实现了精量播种，最少精播（苜蓿草）可控制在 400 克 / 亩；整机结构可方便的改变作业幅宽和行距，同时种箱配有可变窝眼和槽轮排种器，使该机具除用于播种牧草等小粒种子外，还可以播种小麦、大豆等作物。

Product Introduction

This combination seeding system offers the precision of seedlings for China grass, alfalfa, rapeseed, sesame and other small seed drill. The micro control dense seed meter may feed the seed precisely to the application within 400grams per mu. (1mu= 1/15 ha).

The configuration design allowed the easily adjustable width to discs and space to lines, The seed meter runchangeably in roller feed tank capacities. The machine feed to not only sowing the smaller sized seeds as those seeds of pasture, Clover, Rape seeds, but also large sized seeds such as maize and soybean varieties.

主要技术参数 Specifications

项目 Items	单位 Unit	数值 Figures
外形尺寸 Size	mm	2230 × 1000 × 990
结构重量 Weight	kg	330
运输间隙 Transport Clearance	mm	300
工作行数 Rows	Rows	12、6、4、3 (changeable)
行距 Row Spacing	cm	15、30、45、60 (adjustable)
工作幅宽 Operation Width	m	1.8 (Max)
播种深度调节范围 Drill Depth Scope	cm	1.5~6
前种箱容积 Front Seed Tank Volume	L	99
后种箱容积 Rear Seed Tank Volume	L	73.5
配套动力 Matched Power	kw	14.7~20.6
作业速度 Operation Speed	km/h	4~6
生产率 Efficiency	ha/h	0.6~1.0

1.1.5 2BMG-20 免耕施肥播种机免耕播种机 1.1.5 2BMG-20 No-Till Fertilizing Drill



产品简介

BMG 系列免耕施肥播种机适用于干旱、半干旱地区大块土地，适宜免耕种植小麦、大麦、大豆、青贮玉米、油菜、苜蓿及牧草补播草原建设等条播作物，是保护性耕作的关键机具。该系列产品采用控制式密齿型排种器实现精少量播种；并可播种到地边，节约耕地；免耕开沟部件可在秸秆根茬覆盖的未耕地上，一次完成破土、切断秸秆或根茬、开沟、施肥、播种、压种、覆土、镇压等作业；该系列产品技术先进，使用可靠，性价比高，已在干旱、半干旱地区大面积推广应用，用户反映良好。具有节约生产成本、增加农民收入、改善农业生态环境的显著效益。

Product Introduction

2BMG Series No-Till Disc Drills cut through trash to create a clean furrow for seed placement precisely through the dense seed meter. The shank wheel ensured firm and immediate seed-to-soil contact for quick germination and even emergence in the No-tillage Cultivation, for varieties of Wheat, Barley, Soybean, Silage maize Rapeseed, Alfalfa, and Supplementary Reseeding in Pasture lands. 2BMG-19 No-till Fertilizing Drill has shown the advanced technology, reliable quality, and cost economically. It applies in large scale arid and semiarid regions achieving with both economic and ecological benefits.

主要技术参数 Specifications

项目 Items	单位 Units	数值 Figures
外形尺寸（长×宽×高） Size	mm	4700×4200×1750
结构重量 Weight	kg	3800
运输间隙 Transport Clearance	mm	>200
工作行数 Rows	Rows	20
行距 Row Space	mm	160
工作幅宽 Working Width	m	3.2
开沟播种深度调节范围 Plant Depth Scale	cm	1~8
种子箱容积 Seed Box Size	L	420
肥料箱容积 Fertilizer Box Size	L	450
最大排种量 Max. Volume of Seed Distribution	kg/hm ²	360
最大排肥量 Max. Volume of Fertilizer Distribution	kg/hm ²	375
配套动力 Matched Power	kW	≥88.9
作业速度 Working Speed	km/h	8~12
生产率 Efficiency	hm ² /h	2~3

1.1.6 2BMG-28 免耕施肥播种机

1.1.6 2BMG-28 No-Till Fertilizing Drill



产品简介

2BMG 系列免耕施肥播种机用于免耕种植小麦、大麦、大豆、青贮玉米、油菜、苜蓿及牧草补播草原建设等。

该系列产品采用控制式密齿型排种器实现精少量播种，免耕开沟部件可在秸秆根茬覆盖的未耕地上，一次完成切断秸秆或切开根茬、开沟、施肥、播种、压种、覆土、镇压等作业，该产品已进行批量生产，技术先进，使用可靠，性价比好，在干旱半干旱地区大面积推广应用，用户反应良好，取得明显的经济效益和良好的生态效益。

Product Introduction

2BMG Series No-Till Disc Drills cut through trash to create a clean furrow for seed placement precisely through the dense seed meter. The shank wheel ensured firm and immediate seed-to-soil contact for quick germination and even emergence in the No-tillage Cultivation, for varieties of Wheat, Barley, Soybean, Silage maize Rapeseed, Alfalfa, and Supplementary Reseeding in Pasture lands. 2BMG-28 No-till Fertilizing Drill has shown the advanced technology, reliable quality, and cost economically. It applies in large scale arid and semiarid regions achieving with both economic and ecological benefits.

主要技术参数 Specifications

项目 Items	单位 Units	数值 Figures
外形尺寸 (长×宽×高) Size	mm	4700×5800×1750
结构重量 Weight	kg	4600
运输间隙 Opener Clearance	mm	>200
工作行数 Rows	Rows	28
行距 Row Space	mm	160
工作幅宽 Working Depth	m	4.56
开沟播种深度调节范围 Plant Depth Scale	cm	2~7
种子箱容积 Seed Tank Capacity	L	600
肥料箱容积 Fertilizer Tank Capacity	L	640
最大排种量 Max Seed Rate	kg/hm ²	360
最大排肥量 Max. Fertilizer Rate	kg/hm ²	390
配套动力 Power Demand	kW	≥88.2
作业速度 Speed	km/h	5~9
生产率 Efficiency	hm ² /h	2.4~3.6

1.1.7 2BQX 玉米精密播种机 1.1.7 2BQX No Tillage Air Suction Precise Seeder



产品简介

2BQX 系列玉米精密播种机，适用于在翻耕地上进行玉米、大豆等作物的精量播种作业。该系列产品与拖拉机悬挂连接，配置靴铲式施肥开沟器、气吸式排种器和带有双侧限深轮的双圆盘播种开沟器，通过更换不同孔径的排种盘，还可播种油葵、甜菜等作物，一次进地即可完成开沟、施肥、播种、覆土镇压等多道作业工序，使用维护方便，作业性能可靠，是玉米、大豆精密播种的理想机型。

Product Introduction

2BQX series production corn precise seeder for single line precision sowing corn, seed meter is allowed seeding operation for sorghum, sunflower, sugar beet through changing seed meters size in pores. The operation completed with ditching, fertilizing, planting, overburden repression in one round, which is an ideal type of seeder for corn seeding in conservationfield.

主要技术参数 Specifications

项目 Item	Unit 单位	2BQX-4	2BQX-6C	2BQX-8
工作行数 Rows	Rows	4	6	8
外形尺寸（长×宽×高）Size	mm	2000×3450×2200	2000×4850×2200	2000×6250×2200
行距调节范围 Row Space	mm	500~700 650~700 650~700		
播种深度 Plant Depth Scale	mm	10~80		
施肥深度 Fertilizer Depth	mm	50~120		
播种开沟器型式 Sowing boot type		双圆盘（带双侧限深轮） Double disc(deep wheel with double side)		
排种器型式 Seeding unit type		气吸式 Aspirated-air type		
施肥开沟器型式 Fertilizer opener type		靴铲式 Shoe-type		
排肥器型式 Fertilizer type		槽轮式 Fluted-roller		
配套拖拉机动力 Matched Power	hp	60~75	90~120	120~150
与拖拉机联接型式 Suspension type		三点悬挂 Trifilar suspension		
作业速度 Speed	km/h	6~10		

1.1.8 蔬菜移栽机

1.1.8 Vegetable Transplanter



产品简介

- ◆ 机器通用性强，可同时适应垄上、平地、露地和膜上移栽作业；
- ◆ 株距、行距、移栽深度调节方便，适应各种不同的种植模式；
- ◆ 适合番茄、辣椒多种蔬菜作物和烟草、棉花等经济作物的带土移栽；
- ◆ 独特的苗喂入机构，减轻劳动强度，提高作业效率；
- ◆ 机器前端可加装配套的覆膜机，实现覆膜、移栽一体化作业；
- ◆ 可选装覆土及浇水部件。

Product Introduction

- ◆ Versatile equipment, can work on ridge field, on flat field, and filmed field.
- ◆ Semiautomatic equipment for transplanting seedlings with a conical, cubic or pyramid-shaped root ball.
- ◆ Row space, plant space and transplanting depth can be adjusted easily.
- ◆ Recommended for tobacco, tomato, cabbage, courgette, broccoli, and other similar seedlings.
- ◆ Professionally designed feeding cylinder rotates in horizontal direction, which enable the operator feed seedlings comfortably and efficiently.
- ◆ Can be matched with film layer in the front part.
- ◆ Water tank is an optional part.

主要技术参数

型号	2ZY-1A	2ZY-2A	2ZY-3A	2ZY-4A	2ZY-6A
工作形式	悬挂式	悬挂式	悬挂式	悬挂式	悬挂式
外形尺寸(cm)	210×150×210	210×200×210	210×320×210	210×370×210	210×400×210
配套动力 (hp)	≥25	≥30	≥40	≥50	≥70
移栽行数	1	2	3	4	6
行距 (cm)	/	35~110	35~145	35~113	35~75
株距 (cm)	≥19	≥19	≥19	≥19	≥19
作业速度 (km/h)	2.5~3	2.5~3	2.5~3	2.5~3	2.5~3
整机重量 (kg)	290	345	463	590	780

Specifications

Model	2ZY-1A	2ZY-2A	2ZY-3A	2ZY-4A	2ZY-6A
Type	Mounted	Mounted	Mounted	Mounted	Mounted
Dimension(cm)	210×150×210	210×200×210	210×320×210	210×370×210	210×400×210
Matched power (hp)	≥25	≥30	≥40	≥50	≥70
Rows	1	2	3	4	6
Row space (cm)	/	35~110	35~145	35~113	35~75
Plant space (cm)	≥19	≥19	≥19	≥19	≥19
Work speed (km/h)	2.5~3	2.5~3	2.5~3	2.5~3	2.5~3
Total weight (kg)	290	345	463	590	780

1.1.9 2ZF-430 手扶式插秧机

1.1.9 Walk-behind trans-planter Model 2ZF-430



产品简介

发动机型号: EY20B
 标定功率 / 转速 (kW / r/min): 2.61 / 1800
 启动方式: 手拉反冲式
 送秧方式: 自动
 仿形机构: 液压
 驱动轮数: 两轮
 车轮结构形式: 橡胶轮
 变速方式: 机械
 级数: 有级 (前进 2 档, 倒退 1 档)
 主离合器形式: 皮带离合器
 转向助力: 无
 过载保护装置形式: 牙嵌式
 监控报警: 标杆监控
 分插机构: 曲柄摇杆式
 插秧频次 (次 / min) < 270
 行数 (cm): 4 行
 行距 (cm): 30
 株穴距 (cm): 13、15、18、21 共 4 级
 插秧密度 (株 / m²): 24.2、21.2、18.2、15.2 共 4 级
 插秧深度 (cm): 1 ~ 4 (6 级)
 整机结构形式: 步行式
 整机结构重量 (kg): 170

出口业绩

363 台东南亚地区 (马来西亚, 印度, 印度尼西亚)。

Product Introduction

Engine model: EY20B
 Rated power/rpm(KW/r/min): 2.61/1800
 Starting method: recoil
 Seeding-push method: manual
 Profiling mechanism: hydraulic
 Driving wheels: two wheel
 Wheel type: solid rubber
 Transmission method: Mechanical
 Steps: two forward gears, one reverse
 Main clutch type: belt clutch
 Steering assisted: none
 Over-load protection device type: Jaw clutch
 Monitoring alarm: lever monitor
 Trans-planting mechanism: crank-rocker
 Planting efficiency(times/min) < 270
 Rows: four rows
 Row spacing(cm): 30
 Plant spacing(cm): 13\15\18\21 four grades
 Planting density (plants/sq.m): 24.2/21.2/18.2/15.2four grades.
 Planting depth(cm): 1~4(six grades)
 Structure type: walking type
 Total weight(kg): 170

Export Performance:

363 sets to Southeast Asia,(Malaysia, India, Indonesia etc) .

1.1.10 2ZG630A 水稻高速插秧机

1.1.10 Rice high speed transplanter Model 2ZG630A



产品简介

发动机型号：CH18
 标定功率 / 转速 (kW/ r/min) : 11.4/3600
 启动方式：电启动
 送秧方式：自动
 仿形机构：液压
 驱动轮数：四轮
 车轮结构形式：前轮防爆轮胎、后轮橡胶凸耳轮胎
 变速方式：液压无级变速
 级数：无级（主变速无级、副变速 2 级）
 主离合器形式：无
 转向助力：液压
 过载保护装置形式：牙嵌式
 监控报警：标杆监控
 分插机构：旋转式，插秧频次（次 /min）> 270
 行数（cm）：6 行
 行距（cm）：30，株穴距（cm）：12、14、16、18、21
 共 5 级
 插秧密度（株 /m²）：27.3、24.2、21.2、18.2、15.2
 共 5 级
 整机结构形式：乘坐式
 整机结构重量（kg）：700

出口业绩

153 台东南亚地区（比如马来西亚）。

Product Introduction

Engine model: CH18
 Rated power/rpm(KW/r/min): 11.4/3600
 Starting method: electrical
 Seeding-push method: Automatic
 Profiling mechanism: hydraulic
 Driving wheels: four wheel
 Wheel type: front wheel with flame-proof tire. rear wheel with lug solid rubber tire
 Transmission method: HST
 Steps: stepless(main transmission is stepless, auxiliary transmission of two steps.)
 Main clutch type: None
 Steering assisted: hydraulic.
 Over-load protection device type: Jaw clutch.
 Monitoring alarm: lever monitor
 Trans-planting mechanism: rotary
 Planting efficiency(times/min) > 270
 Rows: six rows
 Row spacing(cm): 30
 Plant spacing(cm): 12\14\16\18\21 five grades.
 Planting density(plants/sq.m): 27.3/24.2/21.2/18.2/15.2 five grades
 Structure type: driving type
 Total weight(kg): 700

Export Performance:

153 sets to Southeast Asia(Malaysia).

1.1.11 2ZG824 型乘坐式水稻插秧机 1.1.11 Driving type rice transplanter Model 2ZG824



产品简介

发动机型号：CH18
 标定功率 / 转速 (kW/ r/min) : 11.4/3600
 启动方式：电启动
 送秧方式：自动
 仿形机构：液压
 驱动轮数：四轮
 车轮结构形式：前轮防爆轮胎、后轮橡胶凸耳轮胎
 变速方式：液压无级变速
 级数：无级（主变速无级、副变速 2 级）
 主离合器形式：无
 转向助力：液压
 过载保护装置形式：牙嵌式
 监控报警：标杆监控
 分插机构：旋转式
 插秧频次 (次 /min) > 270
 行数 (cm)：8 行
 行距 (cm)：24，株穴距 (cm)：12、14、16、18、21
 共 5 级
 插秧密度 (株 /m²)：33.3、30.3、27.2、24.2、21.2
 共 5 级
 整机结构形式：乘坐式
 整机结构重量 (kg)：700

出口业绩

10 台东南亚地区（马来西亚）。

Product Introduction

Engine model: CH18
 Rated power/rpm(KW/r/min): 11.4/3600
 Starting method: electrical
 Seeding-push method: Automatic
 Profiling mechanism: hydraulic
 Driving wheels: four wheel
 Wheel type: front wheel with flame-proof tire, rear wheel with lug solid rubber tire.
 Transmission method: HST
 Steps: stepless(main transmission is stepless, auxiliary transmission of two steps.)
 Main clutch type: None
 Steering assisted: Hydraulic
 Over-load protection device type: Jaw clutch
 Monitoring alarm: lever monitor
 Trans-planting mechanism: rotary
 Planting efficiency(times/min) > 270
 Rows: eight rows
 Row spacing(cm): 24
 Plant spacing(cm): 12\14\16\18\21five grades
 Planting density(plants/sq.m):33.3/30.3/27.2/24.2/21.2. five grades
 Structure type: driving type
 Total weight(kg): 700

Export Performance:

10 sets to Southeast Asia(Malaysia).

1.1.12 中农机 — 井关 PC6 水稻插秧机

1.1.12 ZongNongJi-ISEKI Driving type rice transplanter Model 2ZG824



产品简介

发动机生产厂家：三菱重工业（上海）有限公司
 型号：GT600LC
 标定功率 / 转速：2.9 kW/1600r/min
 启动方式：手拉反冲
 送秧方式：曲轴式
 仿形机构：液压仿形
 驱动轮数：两轮
 车轮结构形式：金属水田轮
 变速方式和级数：机械变速 / 有级（前进2档，倒退1档）
 主离合器形式：爪式
 转向助力：机械转向
 过载保护装置形式：传动过载保护
 分插机构：曲柄摇杆式
 插秧频次：270 次 /min（标定转速为 1600 r/min 时）
 行数及行距：6 行
 行距 30cm
 株穴距（cm）：14、16、18 共 3 级
 插秧密度：18-24 株 /m² 共 3 级
 插秧深度（cm）：0.4 ~ 4.0(7 级)
 送秧移距（mm）：24、20、18 共 3 级
 取秧深度：8mm ~ 19mm
 适应泥脚深度：15cm ~ 30cm
 整机结构形式：步行式
 整机结构重量（kg）：184kg

Product Introduction

Engine model: GT600LC
 Rated power/rpm(KW/r/min): 2.9 /1600
 Starting method: electrical
 Seeding-push method: manual
 Profiling mechanism: hydraulic
 Driving wheels: two wheel
 Wheel type: Metal paddy round
 Transmission method and Steps: Mechanical: two forward gears, one reverse
 Main clutch type: Claw
 Steering assisted: Mechanical steering
 Over-load protection device type: Drive Type
 Trans-planting mechanism: crank-rocker
 Planting efficiency(times/min) < 270
 Rows and Row spacing(cm) : four rows; 30
 Plant spacing(cm): 14\16\18 three grades
 Planting density (plants/sq.m): 18-24 three grades.
 Planting depth(cm): 1~4(six grades)
 Structure type: walking type
 Total weight(kg):184

1.2 排灌节水机械

1.2 Equipment and Engineering for Irrigation System

1.2.1 DYP 系列电动圆形喷灌机

1.2.1 DYP Series Electrical Drive Center Pivot Irrigation System



产品简介

DYP 系列电动圆形喷灌机适宜喷灌马铃薯、豆类、经济作物和牧草。

该自动化灌溉系统具有高效、节能、节水、增产、省工等特点。配套动力可用电网或柴油发电机组。其电器控制系统安全可靠。过雨量保护，自动导向系统，地头自动停机系统和故障自动报警系统处于国内领先地位。喷洒部件可配摇臂式喷头与喷枪。喷洒均匀度系数可达 86% 以上，并能喷洒化肥和农药。该系统可在起伏地面工作，爬坡能力 5 ~ 25%，所有关键部件均经过热浸镀锌处理，可保证 15 年不锈蚀。

Product Introduction

It consists of a span and an overhang. It can be pulled to another irrigate position and irrigates several circle fields. Its max. radius is 110 meters including the end gun. It is fit for irrigating small fields.

主要技术参数 Specifications

项目 Item	单位 Unit	规格 Specification
设备长度 Length	m	65-686
跨距 Span	m	61/50/55
输水管外径 Diameter	mm	165
桁架通过高度 Truss Length	m	2.70
末端悬臂长度 End boom length	m	0~21
末端最小工作压力 End of the minimum operating pressure	MPa	0.1~0.15
降雨量 Rainfall	mm/h	5.21~52.1
组合喷灌均匀度 Combination sprinkler uniformity	%	≥86
最大爬坡能力 Maximum gradeability	%	≤25
轮胎型号 Tire model	/	14.9-24
电机减速器功率 Motor reducer power	Hp	1.2
喷头间距 Nozzle spacing	m	2.78

1.2.2 GYP 系列滚移式喷灌机

1.2.2 GYP Series Electrical Drive Linear move Irrigation System



产品简介

GYP 系列滚移式喷灌机，可灌溉更多的地块和轮流灌溉作物，能有效降低每公顷土地的灌溉成本。

液压马达，无级变速，操作简单；轻质轮子，田间通过能力强，利于转移；四轮双梁加长型中央驱动车，可保证管道移动的直线性；喷头矫正器保证了良好的灌溉质量；快速拆装式管接头，省时省力，装拆方便，可灌溉不规则地块。

Product Introduction

The operator can easily regulate speed and power to fit the road and land contour with hydrostatic transmission device which is at all speeds from full forward through zero to full reverse. The mover unit's longer, dual-rail frame improves wheel alignment. Sprinkler levelers assemble, taking down the irrigating fields.

主要技术参数 Specifications

项目 Item	单位 Unit	规格 Specification
设备长度 Equipment length	m	40~500
管道公称直径 Diameter	英寸 inch	5
喷灌机流量 Flow rate	m ³ /h	10~120
入口工作压力 Inlet operation pressure	MPa	0.30~0.45
发动机功率 Motor power	Hp	6
行走速度 Speed	m/min	0.3~20
每段输水管道长度 The length of each aqueduct	m	12
设备通过高度 Equipment through the highly	m	0.97
轮子直径 Tire diameter	m	1.93
灌溉强度 Irrigation intensity	mm/h	7.2~15
喷头流量 Nozzle flow rate	m ³ /h	1.5~3.0
设备长度 Equipment length	m	40~500

1.3 植保机械

1.3 Equipment for Modern Agriculture – Plant Protection

1.3.1 3WZG-3000A 高地隙自走式喷杆喷雾机

1.3.1 3WZG-3000A high Clearance Self Propelled Boom Sprayers



产品简介

3WZG-3000A 型自走式高地隙喷杆喷雾机为四轮液压驱动，地隙高（最高可达 1.9 米），通过性能好；轮距可调，可适用不同地区多种作物的种植行距；采用自走式结构，机动性好；采用进口控制系统，可依据前进速度的变化实时变量喷药；喷幅宽，工作效率高。可广泛适用于大田作物如小麦、玉米、棉花、大豆、油菜等作物的病虫害防治或喷洒叶面肥及棉花的化调剂和脱叶剂等。

该机还可一机多用，配上打顶系统可实施棉花打顶作业；装上抽雄装置，也可进行玉米去雄工作。

Product Introduction

3WZG-3000A high Clearance Self Propelled Boom Sprayers, with the characteristics of big power, high ground clearance and adjustable track, etc., can be widely used for spraying pesticides in the fields of wheat, corn, cotton, soybean, etc. in high efficiency. It also can be used for spraying liquid fertilizers.

主要技术参数 Specifications

项目 Items	单位 Units	数值 Figures	
发动机功率 Engine Power	KW (hp)	92 (125)	162 (220)
传动 Transmission		静液压 hydraulic drive	
工作速度 Working speed	km/h	0 ~ 18	
运输速度 Transfer speed	km/h	0 ~ 35	
一般制动 Service brake		静液压制动 Hydrostatic brake	
手刹制动 Hand brakes		盘式 Disc brakes	
转向 Steering		液压助力 Hydraulic assistance	
转弯半径 Turning Radius	m	6	7
轮距 Track width	m	2.28 ~ 2.90	3.00 ~ 3.80
地隙 Ground clearance	m	1.35 ~ 1.90	1.55 ~ 1.90
喷杆作业高度 Boom height	m	0.60 ~ 2.20	
药液箱容积 Tank	L (升)	3000	
喷幅 Boom width	m	18 ~ 25	
喷杆 Boom		自动平衡 Automatic paralleling	
药液泵 Diaphragm pump	L/min (升/分)	250 ~ 280	
整机净重 Net weight	kg	6600	8200
GPS		可选装 (Selectable)	
自动控制 Spraying control		Teejet 控制系统 (System Teejet)	
驾驶室 Cab		选装空调 Air condition selectable	
选配装置 Matching Device		可选配玉米打顶装置 optional corn topping device	

1.3.2 3WX-1650 悬挂式喷杆喷雾机

1.3.2 3WX-1650 mounted Boom Sprayers



产品简介

3WX-1650 型悬挂式喷杆喷雾机广泛适用于旱地、水田和草原农作物的病虫草害防治，可进行叶面肥料喷洒、生长调节剂和其他喷雾作业。

喷杆的折叠、升降由液压控制完成，操作方便。喷杆上装有防滴喷头，机具停喷时，防滴效果好。液泵采用进口原装隔膜泵，排量大，工作可靠；药液箱采用优质玻璃钢制造，喷管采用无缝不锈钢管制造，耐腐蚀能力强，使用寿命长。

机组地头转弯半径小，重量轻，适应性广，既可用于旱田，也可用于水田的病虫草害防治。

Product Introduction

3WX-1650 type hanging boom sprayer is widely used in insect pest control upland, paddy fields and grassland crops can be sprayed with foliar fertilizers, growth regulators and other spray operations.

Boom Folding, and lifting by hydraulic control, easy to operate. Equipped with anti-drip nozzle spray bar. When machinery turn off, it also has good antidrip effect. Diaphragm pumps are imported, has large displacement, reliable features. The tank made of high quality fiberglass, nozzle made of seamless stainless steel pipe, corrosion resistance, long service life.

Unit has small turning radius, light weight, wide adaptability features, Both suitable for dry land, and paddy field insect control.

主要技术参数 Specifications

项目 Items	单位 Unit	数值 Figures
外形尺寸 Size (运输状态 Transportation)	mm	主机 Body: 1680×3200×3600 前药箱 Front Tank: 1400×780×1050
整机净重 Weight	kg	主机 Body 780, 前药箱 Front Tank 160
配套动力 Matched Power	kW(HP)	≥73.5 (100)
药箱额定容量 Tank Size	L	1650
喷幅 Range	m	18
额定喷雾压力 Pressure	MPa	0.3~0.5
液泵额定转速 Pump Speed	r/min	540
液泵排量 Pump Flow Rate	L/min	≥200
作业速度 Speed	km/h	旱地 Terra 6~10; 水田 Paddy 4~6

1.3.3 3WX-400 悬挂式喷杆喷雾机

1.3.3 3WX-400 mounted Boom Sprayers



产品简介

本系列产品适用于大田农作物及蔬菜、草地等的病虫害防治，可进行叶面肥料、生长调节剂喷洒及其他各种喷雾作业。喷雾机主要工作部件采用不锈钢、优质工程塑料等制成，耐腐蚀性能强，工作可靠；液泵采用隔膜泵或三缸柱塞泵，工作压力稳定，喷雾性能好，雾量分布均匀。喷杆高度可调，分配阀布置利于拖拉机驾驶员操作。工作管路中采用三级过滤，确保作业过程中不会堵塞喷嘴。喷洒部件采用防滴喷头，以避免管路中残留药液滴漏。

Product Introduction

This series of products are suitable for field crops and vegetables, grass and other insect pest control, can be used for foliar feeding, growth regulators and other types of spray spraying operations. The Sprayer's mainly working parts made of stainless steel, and high quality engineering plastics. It is reliable, and corrosion resistance; using diaphragm or triplex plunger pump, has stability working pressure, good spray performance, mist evenly distributed. Boom height adjustable dispensing valve arrangement is conducive to the tractor driver operation. Pipe work using three filters to ensure the nozzles working smoothly. Components using drip spray nozzle to avoid residual liquid drip tube.

主要技术参数 Specifications

项目 Item	单位 Unit	数值 Figures
外形尺寸（长×宽×高）Size (喷杆最低位置，运输状态 Transport condition)	mm	1150×2100×1180
机具净重 Weight	kg	120
配套动力 Matched Power	kW(HP)	≥29.6
药液箱容量 Tank Size	L	400
喷幅 Range	m	6
液泵排量 Pump Rate	L/min	40
额定喷雾压力 Pressure	MPa	0.3~0.5
液泵额定转速 PTO	r/min	540
作业速度 Speed	km/h	6~10

1.3.4 3WFC-1000 车载式风送高射程喷雾机

1.3.4 3WFC-1000 Vehicle-mounted wind to send high range Boom Sprayers



产品简介

3WFC 系列车载式风送高射程喷雾机，主要应用于行道树、防护林等高大树木的病虫草害防治，兼用于大田农作物、草原、果树、苗圃等作物的病虫草害防治以及草原灭蝗作业、垃圾填埋场喷雾除臭、灾区消毒防疫等。机具具有风量大、射程远、雾滴均匀，作业效率高、使用方便、机动性好、适应性广等特点。通过上下、左右调节风筒出口方向，可以满足不同高度树木、不同作物的喷雾作业的需要。

Product Introduction

3WFC series of vehicle-mounted breeze high range sprayer, mainly used in street trees, shelterbelts and other tall trees pest control, and operated for field crops, grassland, fruit trees, nurseries and other crops and grassland pest control, landfill field deodorant spray, disinfect the affected areas and so on. These series machine have air volume, long range, uniform droplet, high efficiency, easy to use, mobility, and wide adaptability. The outlet duct direction could adjust from Up to down, left to right, to meet the different height of trees, crops require, finish different spray job.

主要技术参数 Specifications

项目 Item	单位 Unit	数值 Figures
外形尺寸 Size	mm	主机 Body: 1430×1270×1800 药箱部件 Tank: 1400×1150×1200
整机净重 Weight	kg	720
药箱额定容量 Tank Size	L	1000
配套动力 Matched Power	kW	12.13
额定喷雾压力 Work Pressure	MPa	1.5~3.0
水平喷雾射程 Horizontal Range	m	≥40
垂直喷雾射程 Vertical Range	m	≥25
喷雾量 Spray Rate	L/min	15~25
遥控器有效控制距离 Remote Control	m	≥10
雾滴直径 Drop Size	μm	50~150
配套汽车额定载重量 Matched Loading Weight	Ton	≥2

1.3.5 3WFG-20 无人直升机

1.3.5 3WFG-20 unmanned helicopter



产品简介

1、高精度：采用 GPS 与 IMU 结合的控制方式，提高悬停和飞行精度，悬停精度为 ± 3 米误差内。可以精确完成操作者的指定飞行动作。

2、高效率：无人直升机系统飞机平台携带施药装备，1 ~ 2 人便可完成田间施药作业，大幅提高工作效率，减轻工作强度。

3、高安全：飞机结构成熟、整体运行稳定、可靠，可实现遇险自动返航。

4、易操作：内置的增稳算法能够协助增强飞机稳定性，飞行人员只需控制油门和方向即可获得良好的飞行姿态。

5、易维护：保养周期长，维护简便快捷。

附：飞行模式选择：姿态模式、半自动模式和全自动模式。

姿态模式：飞机的飞行姿态和轨迹完全由驾驶人员通过遥控器控制，增加驾驶乐趣。

半自动模式：在飞行员通过遥控器控制的基础上，由 GPS 和 IMU 模块对飞机进行增稳控制，使飞机获得平稳的飞行姿态。

全自动模式：飞机可按指定点或指定航线自主飞行。

Product Introduction

1. high-precision: the use of a combination of GPS and IMU control methods, improving the precision hovering and flying, hovering within an accuracy of ± 3 m of error in . You can complete the operator to specify the precise maneuvers.

2. High Efficiency: unmanned helicopter's system platform carrying aircraft spraying equipment, 1 to 2 people can complete the field spraying operations, significantly improve efficiency, reduce the intensity .

3. high security: aircraft structures mature, stable, reliable the whole, and can realize automatic distress return .

4. easy to operate: Built-in augmentation algorithm can help enhance the stability of the aircraft, the flight crew to control the throttle and direction just to get a good flight attitude .

5. easy to maintain: a long maintenance cycle, maintenance is simple and quick.

Notes: Flight mode options: gesture mode, semi-automatic and fully automatic mode.

主要技术参数 Specifications

1	主旋翼直径 Main rotor diameter	2000mm
2	飞机外形尺寸 Aircraft Dimensions	2560*470*600mm
3	载重 Load	20/Max23 kg
4	起飞重量 Takeoff weight	≤ 45
5	喷幅 Spray rate	2.4m
6	飞行速度 Flight speed	1-15m/s
7	飞行高度 Altitude	≤ 2000
8	飞行时间 Flight Time	60min (标配汽油 Standard gasoline)
9	驱动方式 Drive mode	汽油发动机 Gasoline engines
10	喷洒能力 Spraying capacity	3.24 亩/min 3.24 acres / min

1.3.6 3WFD-10 多旋翼农用无人机

1.3.6 3WFD-10 multi-rotor UAV farm



产品简介

1、高效作业：同等作业条件下，无人旋翼机每天可作业 400 亩左右，作业效率是人工机械作业效率的 5 倍。

2、节省农药：同等作业条件下，与常规喷雾施药量相比，可节约药液 95% 以上，同时降低了环境污染。

3、变量施药：可根据飞机速度变化，自动调节喷药量，保持单位面积喷药量不变。

4、省时省力：GPS 导航，自动规划航线，按航线自主飞行，大幅降低操作人员作业强度，提高工作效率。

5、安全优质：施药人员遥控操作施药，远离施药环境，避免农药中毒现象的发生。作业高度低，旋翼向下的气流可以有效提高雾滴的穿透性，减少雾滴飘移现象的发生。

6、智能便捷：采用 GPS 与惯性测量系统，可实现手控飞行与全自控飞行模式，且两种模式之间可随时切换。在全自控飞行模式下可预先对喷药作业范围和作业轨迹进行规划，而后可以自动实施喷药作业且可以记录喷药断点，重新起飞或装药后，可自动回至断点处继续作业。

Product Introduction

1. Efficient operation: under the same operating conditions, operating unmanned rotorcraft can be about 400 acres a day, five times the operating efficiency of artificial mechanical work efficiency.

2. Save pesticides: under the same operating conditions as compared to conventional spray application volume, saving over 95% of liquid, while reducing environmental pollution.

3. The variable spraying: can vary according to aircraft speed, automatically adjust the amount of spraying, spraying volume per unit area remain unchanged.

4. Saving time and effort: GPS navigation, automatic route planning, according to airline autonomous flight, significantly reducing operator job intensity and improve work efficiency.

5. Safe and high quality: application personnel remote control spraying, spraying away from the environment, to avoid the occurrence of pesticide poisoning. Low operating height, the rotor can improve the downward gas flow penetrating droplet and reduce spray drift phenomenon.

6. Intelligent and convenient: the use of GPS and inertial measurement systems, enabling full automation with manual flight mode, and can always switch between the two modes. In full automatic control mode can be pre-flight operations on the scope and operation of spraying trajectory planning, then you can automatically implement spraying operations and can break records again after the charge off or automatically return to the breakpoint continuing operations.

主要技术参数 Specifications

1	单个旋翼直径 Single rotor diameter	381mm
2	旋翼个数 The number of rotor	18 个 18 unit
3	载重 Load	8/Max10 kg
4	起飞重量 Takeoff weight	≤21kg
5	喷幅 Spray rate	4.5m
6	飞行速度 Flight speed	1-6m/s
7	飞行高度 Altitude	≤550m
8	飞行时间 Flight Time	15-30min
9	驱动方式 Drive mode	无刷电机 Brushless Motor
10	喷洒能力 Spraying capacity	2.3 亩/min 2.3 mu / min

1.4 收获机械

1.4 Harvesting Machinery

1.4.1 半喂水稻入收割机

1.4.1 Semi feeding combine

1.4.1.1 4LBZ-150 II 半喂入联合收割机

1.4.1.1 Semi feeding combine harvester Model 4LBZ-150II



产品简介

发动机型号：498BZT，
12 小时标定功率 / 转速 (kW /r/min)：52/2400，
排气污染物排放限值执行标准：GB/T20790-2006，
割台幅宽：1.5m，
割刀驱动方式：往复式，
扶禾变速档位：3 档，
喂入深度调节装置：手动，
脱粒滚筒数量：单滚筒，
脱粒部件形式：弓齿，
主脱粒滚筒转速：不可调，
复脱装置：有，
清选装置：双层筛，
行走变速形式及档位：无级变速 + 副变速 3 档，
操纵装置（变速杆）：单杆，
转向方式：液压转向，
履带接地压力 (kPa)：22，
茎秆切碎装置：有，
报警装置：倒车、机油压力、水温、搅龙堵塞、排草；
履带宽度 (mm)：400；
整机结构重量 (kg) 2450。

出口业绩

112 台东南亚。

Product Introduction

Engine model: 498BZT
12 hours rated power/rpm(kw/r/min):52/2400,
Exhaust pollutants limited value standard: GB/T20790-2006,
Cutting width: 1.5m;
Cutting blade driving method: Reciprocating
Grain lifter gears: three gears.
Feeding depth adjuster: manual
Thresher quantity: single thresher.
Threshing device type: Arch tooth
Main thresher running speed: non-adjustable.
Re-thresher: available.
Cleaning unit: double-layer sieve.
Traveling transmission type and gears: HST & three auxiliary gears.
Gear shift lever: single
Steering method: hydraulic-assisted
Track ground pressure(kpa): 22
Stalk breaker: available
Alarm device in case: reverse, engine oil pressure, water temperature, screw blocking, stalk discharging.
Track width(mm): 400
Total weight(kg): 2450

Export Performance:

112 sets to Southeast Asia.

1.4.1.2 中农机 — 井关 4LBZ-145B(HF608) 半喂入联合收割机 1.4.1.2 ZongNongJi-ISEKI Semi feeding combine harvester Model 4LBZ-145B(HF608)



产品简介

发动机生产厂家：日本井关农机株式会社
 发动机型号：E40E-A
 12 小时标定功率 / 转速：44.6 kW /2400 r/min
 排气污染物排放限值执行标准：中国 II 级
 割台幅宽：1.45m
 割刀驱动方式：曲柄连杆
 扶禾变速档位：3 档
 喂入深度调节装置：自动调节
 脱粒滚筒数量：单滚筒
 脱粒部件形式：弓齿
 复脱装置：螺旋滚筒
 清选装置：单层筛
 行走变速形式及档位：液压无级变速
 操纵装置（变速杆）：单杆
 转向方式：液压转向
 履带接地压力：≤ 24kpa
 茎秆切碎装置：圆盘式切草器
 报警装置：割台、喂入深度、粮仓、倒车
 整机结构重量：2735kg。

Product Introduction

Engine model: E40E-A
 12 hours rated power/rpm(kw/r/min): 44.6 /2400
 Exhaust pollutants limited value standard: China II
 Cutting width: 1.45m
 Cutting blade driving method: Crank and connecting rod
 Grain lifter gears: three gears.
 Feeding depth adjuster: Automatic
 Thresher quantity: single thresher.
 Threshing device type: Arch tooth
 Main thresher running speed: non-adjustable.
 Re-thresher: Spiral roller
 Cleaning unit: single-layer sieve.
 Traveling transmission type and gears: HST & three auxiliary gears.
 Gear shift lever: single
 Steering method: hydraulic-assisted
 Track ground pressure(kpa): ≤24
 Stalk breaker: disc cutting
 Alarm device in case: Cutting, feed depth, granary, reverse.
 Total weight(kg): 2735

1.4.2 全喂入水稻收获机械 1.4.2 Full-feeding combine harvester

1.4.2.1 双 4LZ-2.3 滚筒全喂入联合收割机 1.4.2.1 Double thresher full-feeding combine harvester Model 4LZ-2.3



产品简介

发动机型号：498BZT
 12 小时标定功率 / 转速 (kW /r/min)：55/2600
 排气污染物排放限值执行标准：GB20891-2007
 割台幅宽：2.18m
 拨禾轮升降方式：液压
 脱粒装置形式：切流 + 轴流
 脱粒滚筒数量：双滚筒
 清选装置：双层筛
 清选筛孔形式：鱼鳞
 复脱装置及形式：有，自脱粒
 粮仓容积 (m³)：0.7
 卸粮搅龙：有
 行走变速形式及档位：液压无级变速
 履带宽度 (mm)：400
 整机结构重量 (kg)：2780。

出口业绩

298 台东南亚地区 (泰国，越南)。

Product Introduction

Engine model: 498BZT,
 12 hours rated power/rpm(kw/r/min):55/2600,
 Exhaust pollutants limited value standard: GB20891-2007,
 Cutting width: 2.18m;
 Reel lifting-lowering method: hydraulic
 Threshing unit type: Axial flow & tangential flow.
 Thresher quantity: double thresher.
 Cleaning unit: double-layer sieve.
 Cleaning sieve hole type: scale
 Re-thresh unit And type: available, self-threshing;
 Grain tank capacity(cbm):0.7;
 Unloading auger: available,
 Traveling transmission type and gears: Hydraulic Stepless
 Transmission(HST)
 Track width(mm): 400
 Total weight(kg): 2780

Export Performance

298 sets to Southeast Asia(Vietnam, Thailand).

1.4.2.2 纵向轴流全喂入联合收割机型号：4LZ-2.5 1.4.2.2 Longitudinal axial flow full feeding combine harvester Model 4LZ-2.5



产品简介

发动机型号：498BZT
12 小时标定功率 / 转速 (kW /r/min)：55/2600
排气污染物排放限值执行标准：GB20891-2007
割台幅宽：2.0m
拨禾轮升降方式：液压
脱粒装置形式：轴流
脱粒滚筒数量：单滚筒
清选装置：双层筛
清选筛孔形式：鱼鳞
复脱装置及形式：有，自脱粒
粮仓容积 (m³)0.7
卸粮搅龙：无
行走变速形式及档位：液压无级变速
履带宽度 (mm)：400
整机结构重量 (kg)：2700

出口业绩

26 台东南亚地区 (越南)。

Product Introduction

Engine model: 498BZT,
12 hours rated power/rpm(kw/r/min):55/2600,
Exhaust pollutants limited value standard: GB20891-2007,
Cutting width: 2.0m;
Reel lifting-lowering method: hydraulic
Threshing unit type: Axial flow
Thresher quantity: single thresher.
Cleaning unit: double-layer sieve.
Cleaning sieve hole type: scale
Re-thresh unit And type: available, self-threshing;
Grain tank capacity(cbm):0.7;
Unloading auger: unavailable,
Traveling transmission type and gears: Hydraulic Stepless
Transmission(HST)
Track width(mm): 400
Total weight(kg): 2700

Export Performance

26sets to Southeast Asia(Vietnam).

1.4.2.3 4LZ-3.2 全喂入联合收割机 1.4.2.3 Full feeding combine harvester Model 4LZ-3.2



产品简介

发动机型号：4110
 12 小时标定功率 / 转速 (kW /r/min)：66.3/2300
 排气污染物排放限值执行标准：GB20891—2007
 割台幅宽：2.8m
 拨禾轮升降方式：液压
 脱粒装置形式：轴流
 脱粒滚筒数量：单滚筒
 清选装置：双层筛
 清选筛孔形式：鱼鳞
 复脱装置及形式：有，自脱粒
 粮仓容积 (m³)：1.0
 卸粮搅龙：有
 行走变速形式及档位：机械变速 (前进 6 档，倒退 2 档)
 履带宽度 (mm)：400
 整机结构重量 (kg)：3200

出口业绩

系列全喂入联合收割机出口 3000 余台，包括东南亚地区，拉丁美洲，非洲等地区。

Product Introduction

Engine model: 4110
 12 hours rated power/rpm(kw/r/min):66.3/2300,
 Exhaust pollutants limited value standard: GB20891-2007,
 Cutting width: 2.8m; Reel lifting-lowering method: hydraulic
 Threshing unit type: Axial flow
 Thresher quantity: single thresher.
 Cleaning unit: double-layer sieve.
 Cleaning sieve hole type: scale
 Re-thresh unit And type: available, self-threshing;
 Grain tank capacity(cbm):1.0;
 Unloading auger: available,
 Traveling transmission type and gears: Mechanical (six forward gears, two reverse)
 Track width(mm): 400
 Total weight(kg): 3200

Export Performance

3000 sets to Southeast Asia, Latin America, Africa.

1.4.3 油菜联合收割机

1.4.3 Rape combine harvester

1.4.3.1 4LZ(Y)-1.0 油菜联合收割机

1.4.3.1 Rape combine harvester Model 4LZ(Y)-1.0



产品简介

发动机名称: 495
 12 小时标定功率 / 转速 (kW/r/min): 36.7/2400
 整机质量 (kg): 2330
 外形尺寸 (长 × 宽 × 高) (mm): 4600 × 2700 × 2600
 有无驾驶室及驾驶室形式: 无
 整机结构型式: 履带自走式
 割台幅宽 (m): 2; 最小离地间隙 (mm): 250
 报警装置: 倒车报警
 茎秆切碎装置: 无
 脱粒装置形式: 轴流
 脱粒部件形式: 钉齿
 主脱粒滚筒转速: 不可调
 清选装置: 双层筛
 清选筛孔形式: 鱼鳞
 风量调整方式: 不可调
 复脱装置及形式: 复脱器 (回转击打式)
 粮仓容积 (m³) 及卸粮方式: 0.7 (人工卸粮)
 总损失率 (%): ≤ 8
 生产率 (亩/h): 2 ~ 4
 耗油量 (kg/亩): 1.8 ~ 2.5。

出口业绩

20 台东南亚地区。

Product Introduction

Engine model: 495
 12 hours rated power/rpm(kw/r/min):36.7/2400,
 Total weight(kg): 2330;
 External dimension(length&width&height)(mm): 4600x2700x2600
 Cab type: None
 Structure type: self-propelled Track
 Cutting width(m): 2;
 Minimum ground clearance: 250;
 Alarm Device: reverse alarm
 Stalk breaker: none
 Threshing unit type: Axial flow
 Threshing device type: spike tooth
 Main thresher rpm: non-adjustable
 Cleaning unit: double-layer sieve.
 Cleaning sieve hole type: scale
 Air-volume adjustment type: non-adjustable
 Re-thresh unit And type: re-thresher(rotary-beating);
 Grain tank capacity(cbm) & unloading method:0.7, manual unloading
 Total loss rate(%): ≤8
 Working efficiency(mu/h): 2-4
 Fuel consumption(kg/mu): 1.8~2.5

Export Performance

20 sets to Southeast Asia.

1.4.3.2 4LZ(Y)-1.8 双滚筒油菜联合收割机 1.4.3.2 Double thresher rape combine harvester model 4LZ(Y)-1.8



产品简介

发动机名称: 4105
 12 小时标定功率 / 转速 (kW / r/min): 55/2600
 整机质量 (kg): 780
 外形尺寸 (长 × 宽 × 高) (mm): 5700 × 2700 × 2700
 整机结构型式: 履带自走式
 割台幅宽 (m): 2.18
 最小离地间隙 (mm): 250
 报警装置: 倒车报警
 茎秆切碎装置: 无
 脱粒装置形式: 双滚筒横轴流
 脱粒部件形式: 钉齿
 主脱粒滚筒转速: 不可调
 清选装置: 双层筛
 清选筛孔形式: 鱼鳞
 风量调整方式: 不可调
 复脱装置及形式: 复脱器 (回转击打式)
 粮仓容积 (m³) 及卸粮方式: 0.7 (人工卸粮)
 总损失率 (%): ≤ 8
 生产率 (亩 / h): 2 ~ 4
 耗油量 (kg/hm²): 18 ~ 25

出口业绩

20 台东南亚地区。

Product Introduction

Engine model: 4105
 12 hours rated power/rpm(kw/r/min):55/2600,
 Total weight(kg): 2780;
 External dimension(length&width&height)(mm): 5700x2700x2700
 Structure type: self-propelled Track
 Cutting width(m): 2.18;
 Minimum ground clearance: 250;
 Alarm Device: reverse alarm
 Stalk breaker: none
 Threshing unit type: double thresher transversal Axial flow
 Threshing device type: spike tooth
 Main thresher rpm: non-adjustable
 Cleaning unit: double-layer sieve.
 Cleaning sieve hole type: scale
 Air-volume adjustment type: non-adjustable
 Re-thresh unit And type: re-thresher(rotary-beating);
 Grain tank capacity(cbm) & unloading method:0.7, manual unloading
 Total loss rate(%): ≤8
 Working efficiency(mu/h): 2-4
 Fuel consumption(kg/ha.): 18~25

Export Performance

20 sets to Southeast Asia.

1.4.3.3 4LZ(Y)-2.0 纵向轴流油菜联合收割机

1.4.3.3 Longitudinal axial flow rape combine harvester Model 4LZ(Y)-2.0



产品简介

发动机名称: 4105
 12 小时标定功率 / 转速 (kW / r/min): 55/2600
 整机质量 (kg): 2780
 外形尺寸 (长 × 宽 × 高) (mm): 5700 × 2700 × 27000
 整机结构型式: 履带自走式
 割台幅宽 (m): 2.18
 最小离地间隙 (mm): 250
 报警装置: 倒车报警
 茎秆切碎装置: 无
 脱粒装置形式: 双滚筒横轴流
 脱粒部件形式: 钉齿
 主脱粒滚筒转速: 不可调
 清选装置: 双层筛
 清选筛孔形式: 鱼鳞
 风量调整方式: 不可调
 复脱装置及形式: 复脱器 (回转击打式)
 粮仓容积 (m³) 及卸粮方式: 0.7 (人工卸粮)
 总损失率 (%): ≤ 8
 生产率 (亩/h): 2 ~ 4
 耗油量 (kg/hm²): 18 ~ 25

出口业绩

20 台东南亚地区。

Product Introduction

Engine model: 4105
 12 hours rated power/rpm(kw/r/min):55/2600,
 Total weight(kg): 2780;
 External dimension(length&width&height)(mm): 5700x2700x2700
 Structure type: self-propelled Track
 Cutting width(m): 2.18;
 Minimum ground clearance: 250;
 Alarm Device: reverse alarm
 talk breaker: none
 Threshing unit type: double thresher transversal Axial flow
 Threshing device type: spike tooth
 Main thresher rpm: non-adjustable
 Cleaning unit: double-layer sieve.
 Cleaning sieve hole type: scale
 Air-volume adjustment type: non-adjustable
 Re-thresh unit And type: re-thresher(rotary-beating);
 Grain tank capacity(cbm) &unloading method:0.7, manual unloading
 Total loss rate(%): ≤8
 Working efficiency(mu/h): 2-4
 Fuel consumption(kg/ha.): 18~25

Export Performance

20 sets to Southeast Asia.

1.4.4 中国收获 4LZ-3 型 /4LZ-4 型自走式谷物联合收割机 1.4.4 China Harvest 4LZ-3 /4LZ-4 Self-propelled Grain Combine



产品简介

主要用于小麦的收割，通过换装部分装置，也可实现玉米、水稻、油菜和大豆等作物，结构紧凑，操作方便，适合小地块和旱地作物收获。

1、加强型变速箱：优化变速箱传动比，提高行走速度，有效降低耗油量；

2、可调后桥：轮距可根据作物不同种植模式调节，较少后轮对其它作物的碾压，适应性强；

3、超大清选面积：筛面宽，物料薄，清选分离效果好，干净、高效。尾筛角度可调，适应不同品种、不同成熟期的高效收割；（4LZ-4 型）

4、方便注油：引出式黄油嘴，黄油加注简单方便；

5、可选配集草箱装置，用于秸秆收集；

6、预留玉米装置接口，实现一机多用。

Product Introduction

It is mainly used to harvest the wheat and also suitable for harvesting corn, paddy rice, sorghum, rape and soybean through partial refit. Compact structure and convenient operation. It is suitable for harvesting small plots and very dry crops.

1. Synchronized gear box. The optimized transmission ratio greatly raises the running speed, and reduces the oil consumption effectively.

2. Adjustable rear Axle. According to different crop planting patterns in track adjustment, it reduces the compact to the other crop, available for more regions.

3. Convenient lubricant injection. Drawing out the type lubricant tip makes the lubricant injection simple and convenient.

4. Adjustable rear Axle. According to different crop planting patterns in track adjustment, it reduces the compact to the other crop, available for more region

5. Grass container. Grass container can be optional, it can be used to collect the wheat straw.

6. Available for corn header. Reserved corn harvester equipment installation interface, it will realize one machine multipurpose.

主要技术参数 Specifications

型号 Model	4LZ-4(D4110)
长/宽/高 L/W/H (mm)	6740×3100×3200
割幅 Cutting Width (mm)	2750
喂入量 Feed Rate (kg/s)	4
整机重量 Total weight (kg)	4900
粮箱容积 Capacity of Grain Tank (m ³)	2.2
发动机功率 Engine Power (kw)	81

1.4.5 中国收获开拓者 4YZ-4 自走式玉米联合收获机

1.4.5 China Harvest Kaituoze 4YZ-4 Self-propelled Corn Combine Harvester



产品简介

外表美观、工作高效，可一次完成摘穗、剥皮、果穗集箱、秸秆田等功能；适用于大中地块的玉米作物收获；适合行距为 500—700mm 的玉米种植模式。

- 1、5 组剥皮机构：先进的剥皮机构，适用于成熟度不同的玉米作物收获；
- 2、清选系统：提高籽粒清洁率，减少籽粒损失；
- 3、自动抛穗机构：优化自动抛穗装置，提高粮箱充满度；
- 4、发动机防火装置：配装发动机防火装置，减少火灾隐患。

Product Introduction

Beautiful appearance and high reliability, it can continuous operated to pick, peel, collect, chop the stalk and return to filed; Be suitable for middle and large plots(>0.3ha); be suitable for various row space(500-700mm)by choosing different heads.

1. 5 group peeling rolls system(patented technology). Advanced peeling system and additional cleaning system make it possible for different mature period corn.
2. Cleaning system. It improves grain seed recovery cleanness and reduces grain seed loss.
3. Automatic casting ear mechanism. Optimized casting mechanism improves grain tank filling.
4. Engine refractory protection: Engine fire prevention, less hidden fire troubles.

主要技术参数 Specifications

型号 Model	4YZ-4
通道间距 Channel distance (mm)	650/565
通道 Channel (each)	4
长/宽/高 L/W/H (mm)	8890×2960×3650
整机重量 Total weight (kg)	9100
粮箱容积 Capacity of Grain Tank (m ³)	5
发动机功率 Engine Power (kw)	118
纯工作生产率 Pure work productivity (hm ² /h)	0.6-0.93

出口业绩

近几年出口到苏丹、塔吉克斯坦、尼日利亚、土耳其、澳大利亚、朝鲜等国家，2007 年—2014 年出口额 10,163,329 元。

Export Performance

In recent years, exported to Sudan, Tajikistan, Nigeria, Turkey, Australia, the North Korea and other countries, 2007 -2014 exports of 10,163,329 yuan.

1.4.6 中农机 4YZ-4 自走式玉米联合收获机 1.4.6 ZhongNongJi 4YZ-4 Self-propelled Corn Combine Harvester



产品简介

外型尺寸 (长 × 宽 × 高) : 8310 × 2810 × 3660 (mm)
本机质量 : 7890kg
作业效率 : 0.6-1.4hm²/h
额定功率 : 118KW

Product Introduction

Size: 8310×2810×3660(mm)
Weight: 7890kg
Work productivity: 0.6-1.4hm²/h
Power: 118KW

1.4.7 9LRZ-2.7 自走式青黄贮秸秆收获机

1.4.7 9LRZ-2.7 Self-propelled silage harvester



产品简介

该机以收获适当含水率的小麦秸秆为主，兼收其它谷草和牧草、油菜秆、大豆秆、棉秆、辣椒秆、葵花秆、玉米秸秆等作物秸秆。可一次性完成对作物秸秆的低割、揉搓、粉碎、均衡分离、灰尘清理及抛送装箱等作业。对经收获机收获过的倒伏的各类作物秸秆也可收获，克服了现有青黄贮收获机收获性能单一的弱点，使作物秸秆得到更广泛的回收利用。

Product Introduction

It is mainly used for harvesting wheat straw proper moisture, and can receive other aspartate and pasture, rape rod, the rod soybean, cotton stalk, chili bar, sunflower stalk, corn straw and other crop residues. It can completely low cut crop straw, rubbing, grinding, balancing separation, cleaning up the dust, packing and so on. All kinds of crop straw can be harvested twice, so that crop residues can be more widely recycled.

主要技术参数 Specifications

项目 Items	技术参数 Specifications
动力 (kw) Engine Power	92~103
割副 (mm) Cutting width	2750
外型尺寸 (mm) (L/W/H)	7810 × 3200 × 3640
最小割茬高度 (mm) Minimum cutting height	60
收净率 (%) Net rate	≥90%
标准草长 (mm) Standard length	≤60 (棉秆) ≤5 (青贮玉米) Cotton stalk Silage corn
标准草长率 Standard length rate	85%
草箱容积 m ³ Volume	10
生产率 hm/h Productivity	0.6~1.2 (棉秆) 0.2~0.4 (青贮) Cotton stalk Silage
卸草形式 Outload form	半自卸草高度 3.4 米 Semi outload height: 3.4m

1.4.8 9QS-2.7 自走式青贮机 1.4.8 9QS-2.7 Self-propelled silage harvester



产品简介

该机主要以收获含水率在 65% ~ 70% 的青贮玉米为主，可一次完成收割、揉搓粉碎作业，可跟车接料。该机揉搓能力强，标准草长率高，负荷小，出草率好。适用于中、大地块作业需要。

Product Introduction

It is mainly to harvest silage corn (moisture content is 65% to 70%), it can finish harvesting, rubbing crushing operations in one time, can follow the cart work. Suitable for medium and large plots job requires.

主要技术参数 Specifications

割幅 (m) Cutting width	2.7
动力 Power	180 马力, 2300 转/分 180 hp, 2300 rpm
工作生产率 Work productivity	30 吨亩/小时 30 T mu/h
收净率 Net rate	≥95%
最高收获秸秆高度 (m) Maximum harvest highly	3

1.4.9 4LZJ-3 系列自走式小麦秸秆籽粒收获机

1.4.9 4LZJ-3 Self-propelled wheat straw harvester



产品简介

该机型结构设计独特，主要用于小麦及麦草的收割作业，通过更换部件还可兼收大豆、水稻等其他作物及作物秸秆。既保留了原有收割小麦的功能，又替代了打捆和粉碎揉搓机械，能够一次性把麦类作物的所有物料全部收回，对禁牧还草发展畜牧业具有一定的促进作用。

4LZJ-3A 主要技术参数：Specifications：

项目 Items	技术参数 Specifications
动力 (kw) Power	85
割副 (mm) Cutting width	2750
外形 (长×宽×高) (mm) Size (L×W×H)	7810×3050×3325
最小割茬高度 (mm) Minimum stubble height	≤120
收净率 (%) Net rate	≥90% (麦草) wheat straw
总损失 (%) Total loss	≤1.5% (小麦) Wheat
标准草长 (mm) Standard length	≤290 (小麦秸秆含水率小于 18%) Moisture content less than 18%
标准草长率 Standard length rate	85% (青贮玉米) 75% (小麦秸秆) Silage corn/Wheat straw
草箱容积 m ³ Volume	8
生产率 hm/h Productivity	0.5~0.8 (小麦)
卸草形式 Outload type	半自动低卸草 Semi low outload
卸草高度 (m) Outload height	≤2.65

Product Introduction

The unique structural design models, mainly for wheat and wheat straw harvesting operations, replacement parts can also receive other crops and crop stalks. Only to retain the original features of wheat harvesting, and replace the baling and shredding machinery rub, all the materials can be a one-time full recovery of wheat crops, it has a certain role of animal husbandry.

4LZJ-3B 主要技术参数：Specifications：

项目 Items	技术参数 Specifications
动力 (kw) Power	85~92
割副 (mm) Cutting width	2140
外形 (长×宽×高) (mm) Size (L×W×H)	7810×2520×3360
最小割茬高度 (mm) Minimum stubble height	60~120
收净率 (%) Net rate	≥95% (青贮玉米) ≥90% (麦草) Silage corn/Wheat straw hood
总损失 (%) Total loss	≤1.5% (小麦) Wheat
标准草长 (mm) Standard length	≤290 (小麦秸秆含水率小于 18%) Moisture content less than 18% ≤10 (青贮玉米) 秸秆几何宽度 (Silage corn) Straw geometrical width
标准草长率 Standard length rate	85% (青贮玉米) 75% (小麦秸秆) Silage corn/Wheat straw
草箱容积 m ³ Volume	6
生产率 hm/h Productivity	0.3~0.5 (小麦) 0.2~0.3 (青贮) Wheat Silage
卸草形式 Outload type	半自动低卸草 Semi low outload
卸草高度 (m) Outload height	≤1.25

1.4.10 自走式棉秆联合收获机

1.4.10 Self-propelled Cotton-stalk Combine Harvester



产品简介

- ◆ 一次性完成收获、切碎、抛送装箱、液压翻转卸料装车工作，操纵方便、生产效率高
- ◆ 收割台、捡拾台互换，实现不同的收获模式
- ◆ 钉齿式捡拾台，适应性好
- ◆ 辊式输送过桥，输送效率高，可靠性好
- ◆ 小麦收割机底盘，通用性好，操纵方便，维护简单

Product Introduction

- Can complete the operation of harvest, cut up, throw and collection in box, hydraulic overturn discharge and loading in one-off. Easy for operating and with high efficiency
- Can interchange between harvesting and picking up, and realize the different harvesting modes
- With spiked pick up, and has good adaptability
- Roller conveyor bridge, high transporting efficiency and high reliability
- Using the chassis of wheat combine harvester, good universal property, easy for operating and simple maintenance

主要技术参数 Specifications

项 目 / Items	指标值 / Index values	
外形尺寸 (长 × 宽 × 高) / Dimensions (L × W × H) (mm)	6700 × 3140 × 3380	6450 × 3140 × 3380
收割(捡拾)幅宽 / Harvesting (picking up) width (mm)	2750 (割台) (harvesting)	2500 (捡拾) (picking up)
作业效率 (亩/h) / Operational efficiency (mu /h)	6~12	
主径切段长度(mm) / Cutting length of the main path	≤ 60	
发动机功率 /Engine power (kW)	64	
整机重量 /Total weight (kg)	5280 (割台) (harvesting)	5350 (捡拾) (picking up)

出口业绩

2011 ~ 2012 年度小批量出口印度、苏丹，实现出口创汇 31.7 万美元。

Export Performance

From 2011 to 2012, export India, Sudan, foreign exchange earning \$317000.

1.4.11 自走式能源灌木联合收获机

1.4.11 Self-propelled Shrub Combine Harvester



产品简介

- ◆ 切割、输送、切碎、抛送、集箱、自卸一体化作业
- ◆ 大直径高速锯盘，适合直径小于5cm的灌木高效收获
- ◆ 无损切割，适合沙生灌木平茬复壮
- ◆ 组合式切碎滚筒，切碎高效

Product Introduction

- Combining for harvesting, cutting up, collecting in box, hydraulic overturn discharge and loading
- Large-diameter and high-speed rotary saw, which is suitable for reaping shrub of which diameter is less than 5cm
- Incision without damage, which is suitable for cutting off shrub, living in sand, with stubble remain properly for better recovery
- Combined chopped drum and efficient chopping

主要技术参数 Specifications

名称/ Items	单位/Unit	指标值/ Index values
收割幅宽/ Harvesting width	mm	2000
切碎刀片结构形式/ Chopped blade structure	-	组合刀式切碎滚筒/ Combined knife chopped
收割物料直径/ Harvest material diameter	mm	≤50
切碎长度/ Chopping length	mm	30~50
发动机功率/ Engine power	kW	84
作业速度/ Operating speed	km/h	2~5
整机重量/ Total weight	kg	5300
外形尺寸(长×宽×高) / Dimensions(L×W×H)	mm	6310×2100×3293

1.4.12 4ZB-6 自走式蓖麻收获机 1.4.12 4ZB-6 Castor self-propelled harvester



产品简介

该机可一次完成对蓖麻蒴果梳刷、柔性脱粒、分离、清选、收集到粮箱等作业，整株蓖麻收割后茎秆和蓖麻果达到完全分离，蓖麻果破损少，更换主要工作部件后还可收获小麦、玉米等其它作物。

Product Introduction

It can be used to Castor Capsule comb brushing, flexible threshing, separating, cleaning, and other operations to collect grain tank, the stem and the whole plant castor harvesting fruit to achieve complete separation of castor, castor less fruit damaged, It can also harvest wheat, corn and other crops by replacing the main working parts.

主要技术参数 Specifications

项目 Items	技术参数 Specifications
谷物喂入量 (kg/s) (4LZF-5) Grain feed rate	5
谷物割幅 (mm) (4LZF-5) Cutting width	3600
蓖麻和玉米割台 (4LZB-6) Castor and corn header	(行距 520mm) 6 行 (Rowledge 520mm) 6 rows
总损失 Total loss	玉米≤3% 小麦≤1.5% 蓖麻≤6% Com≤3% Wheat≤1.5% Castor≤6%
破碎 Broken	玉米≤5% 小麦≤1.5% 蓖麻≤6% Com≤5% Wheat≤1.5% Castor≤6%
含杂率 trash content	玉米≤3% 小麦≤1.5% 蓖麻≤7% Com≤3% Wheat≤1.5% Castor≤7%
外型尺寸 (长×宽×高) (mm) Size (L×W×H)	7635X3916X3472
最小离地间隙 (mm) Minimum ground clearance	370
重量 (kg) Weight	6500
功率 (kw) Power	92
转弯半径 (m) Turning radius	7.2
生产率 (公顷/小时) Productivity	0.8-1.5

1.4.13 4JZ-3.6 自走式辣椒收获机

1.4.13 4JZ-3.6 Self-propelled pepper harvester



产品简介

该机选用独特的全幅式采摘台，作业时不受作物行距限制，真正实现了不对行收获，适应收获不同品种的辣椒，摘净率高、损失率、破损率低、作业效率高。

Product Introduction

It has a unique full width picking station, without limitation of crop spacing, truly a not to line harvest, accommodates different varieties of peppers, a high proportion of picking clean, low breakage rate, high operating efficiency.

主要技术参数 Specifications

项目 Items	技术参数 Specifications
动力 (kw) Power	92
作业方式 Operating type	自走式 Self-propelled
作业速度 (km/h) Operating speed	≤ 8
作业行距 Operating row ledge	不对行收获 Not to line harvest
运输状态外形尺寸 (长×宽×高) mm Transport state overall dimensions (L×W×H)	9230×3915×3520
椒箱容量 (m ³) Volume	10.9
最高卸椒高度 (mm) Maximum outload height	2700
作业幅宽 (mm) Operating width	3600
摘净率 (%) Picking rate	≥ 90
损失率 Loss ratio	≤ 6
破损率 Broken rate	≤ 15

2 畜牧业装备 2 Husbandry machinery

2.1 9YFQ-1.9 型跨行式方草捆捡拾压捆机 2.1 9YFQ-1.9 Square Baler



产品简介

9YFQ 系列跨行式方草捆捡拾压捆机主要由捡拾器、输送喂入器、压捆室、打捆结构、压缩活塞、传动系统及机架等部分组成。该机由拖拉机牵引横跨在草条上前进，通过拖拉机动力输出轴将动力传递到打捆机上。捡拾、输送喂入、压缩、打捆、放捆等工序依次自动完成，草捆按固定方向整齐的排列在地面上。

出口业绩

2008 年出口至亚美尼亚。

Product Introduction

9YFQ series trans-row picker-square-balers mainly consist of the picker, feeder, compacting and baling chamber, knotter, piston, transmission system and the frame.

Being towed by a tractor, the machine moves over the windrow. The power is transmitted to the baler via the power take-off shaft of tractor. The processes i.e. picking, feeding, compacting, baling and bale-releasing are completed successively and automatically. The bales are placed in good order on the ground.

Export Performance

Exported to Armenia in 2008.

主要技术指标

捡拾宽度	1928 mm
成捆率	≥99%
草捆横截面尺寸	360×460mm
草捆长度	300~1300mm
草捆密度	110~180kg/m ³
弹齿杆数量和弹齿	3 根, 42 对(组)
搅龙直径	280mm
仿形轮	2 个 (每边一个)
喂入器结构形式	曲柄摇杆式, 喂入叉 4 个
喂入室容积	2851cm ³
活塞往复次数	100 次/分
工作行程长度	550mm
打结器数量和捆绳箱容积	2 个, 6 捆
捆绳箱容量	6 捆
配套拖拉机动力输出轴转速	540r/min
配套动力	35 马力以上拖拉机

Main technical indicators

Picking width	1928 mm
Successful baling ratio	≥99%
Bale cross sectional dimensions	360×460mm
Bale length	300~1300mm
Bale density	110~180kg/m ³
Numbers of spring-tooth rods and spring teeth	3 pieces, 42 pairs (sets)
Auger diameter	280mm
Contour wheel	2 (one on each side)
Feeder construction	Crank-rocker type, with 4 feeding forks
Feeding chamber capacity	2851cm ³
Piston reciprocating frequency	100 times/minute
Stroke	550mm
Number of knotters and capacity of rope box	2 pieces, 6 bales
Capacity of rope box	6 bales
Speed of matched power take-off shaft of tractor	540r/min
Matched Power	Tractor with power more than 35 hp.

2.2 9YFQ-1.5 型跨行式方草捆打捆机

2.2 9YFQ-1.5 Square Baler



产品简介

9YFQ 系列跨行式方草捆捡拾压捆机主要由捡拾器、输送喂入器、压捆室、打捆结构、压缩活塞、传动系统及机架等部分组成。

该机由拖拉机牵引横跨在草条上前进，通过拖拉机动力输出轴将动力传递到打捆机上。捡拾、输送喂入、压缩、打捆、放捆等工序依次自动完成，草捆按固定方向整齐的排列在地面上。

出口业绩

2013 年出口至朝鲜。

Product Introduction

9YFQ series trans-row picker-square-balers mainly consist of the picker, feeder, compacting and baling chamber, knotter, piston, transmission system and the frame.

Being towed by a tractor, the machine moves over the windrow. The power is transmitted to the baler via the power take-off shaft of tractor. The processes i.e. picking, feeding, compacting, baling and bale-releasing are completed successively and automatically. The bales are placed in good order on the ground.

Export Performance

Exported to Korea in 2013.

主要技术指标

捡拾宽度	1500 mm
成捆率	≥99%
草捆截面尺寸	360×460mm
草捆长度	300~1300mm
草捆密度	110~180kg/m ³
弹齿杆数量和弹齿	3 根, 30 对(组)
搅龙直径	直径 280mm
仿形轮	2 个 (每边一个)
喂入器结构形式	曲柄摇杆式, 喂入叉 4 个
喂入室容积	2851cm ³
活塞往复次数	100 次/分
工作行程长度	550mm
打结器数量和捆绳箱容积	2 个, 6 捆
配套拖拉机动力输出轴转速	540r/min
配套动力	35 马力以上拖拉机

Main technical indicators

Picking width	1500 mm
Successful baling ratio	≥99%
Bale cross sectional dimensions	360×460mm
Bale length	300~1300mm
Bale density	110~180kg/m ³
Numbers of spring-tooth rods and spring teeth	3 pieces, 30 pairs (sets)
Auger diameter	280mm
Contour wheel	2 (one on each side)
Feeder construction	Crank-rocker type, with 4 feeding forks
Feeding chamber capacity	2851cm ³
Piston reciprocating frequency	100 times/minute
Stroke	550mm
Number of knotters and capacity of rope box	2 pieces, 6 bales
Speed of matched power take-off shaft of tractor	540r/min
Matched Power	Tractor with power more than 35 hp.

2.3 9YFC-1.7 型方草捆捡拾压捆机

2.3 9YFC-1.7 Square Baler



产品简介

该机具有以下特点：

采用后悬挂侧牵引的挂接牵引方式，以避免机器在作业过程中碾压饲草或秸秆。

整机称 T 形结构，可以保证整机的运平稳与草捆外形平整；特的喂入腔开放式结构，为捡拾起来的玉米秸秆整秆提供了足够的铺放空间；入装置采用相互独立的四连杆机构，可以均匀的将喂入腔里的玉米秸秆输送喂入到压缩室；用进口先进的打结器，保证机器的成捆率，草捆的密度大。

采用螺旋手动压力调节装置，可以根据需要快速设定草捆的密度；用轮盘齿条草捆长度调节装置，调整齿条的定位块的位置，调整草捆的长度。

Product Introduction

The machine has the following features:

Side traction of rear suspension avoids rolling on pastures or straws.

T-shape machine arrangement ensures stable movement and bale uniformity; Unique open-type feeding chamber provides sufficient space to store complete corn straws;

The feeding device adopts the independent four-link mechanism, evenly delivering corn straws to the compaction chamber;

High successful baling ratio and great baling density are ensured by adopting imported state-of-the-art knotters;

Manual screw-type pressure adjusting device can rapidly set the bale density by actual circumstances;

By moving the locating block the wheel-rack device is used to adjust bale length.

主要技术指标

整机外型尺寸 (长×宽×高)	6000×2700×1550 (mm)
捡拾器内侧幅宽	1720 mm
成捆率	≥98%
草捆尺寸 (高×宽×长)	360×460×(300~1200)mm
草捆密度(当牧草含水率为17%~23%时):	
豆科牧草	≥150 kg/m ³
禾本科牧草	≥130 kg/m ³
稻、麦秸秆	≥100 kg/m ³
牧草总损失率:	
禾本科牧草	≤2%
豆科牧草	≤3%
配套动力	≥25.8 kW

Main technical indicators

Machine dimensions (L×W×H)	6000×2700×1550 (mm)
Inner picker width	1720 mm
Successful baling ratio	≥98%
Bale dimensions (h×w×l)	360×460×(300~1200)mm
Bale density (water content of pasture 17%~23%):	
Pastures of pea family	≥150 kg/m ³
Pastures of gramineae	≥130 kg/m ³
Straws of rice and wheat	≥100 kg/m ³
Pasture loss:	
Pasture of gramineae	≤2%
Pasture of pea family	≤3%
Matched power	≥25.8 kW

2.4 9YFS-2.0 型三道捆绳方草捆捡拾压捆机

2.4 9YFS-2.0 Middle Square Baler



产品简介

该机具有以下特点：

牵引梁具有中心牵引和偏置牵引两种方式，可直接在地块对饲草进行捡拾、喂入、打捆作业；

机器是中心对称构造，双曲柄活塞更稳定可靠；

压缩室的独特设计，保证了草捆密度均匀以及较佳的草捆外形；

自带风冷发动机，充足的动力保证草捆密度；

根据作业环境，在驾驶室里控制发动机转速，来控制捡拾器转速和活塞的往复次数；

较高的离地间隙，即使在不平的地块也能防止穿针被碰坏及行动自如；捡拾器安装4组弹齿梁，不仅喂入量大，效率高，且带仿形能力，捡拾干净；

能在恶劣的气候条件下作业。

Product Introduction

The machine has the following features:

For the traction the force action point may, or may not, be the center of the traction beam. The picking, feeding and baling can be directly conducted in the field;

The centrosymmetric construction and double-crank piston enhance the stability and reliability of the machine;

Novel design of compaction chamber ensures uniform bale density and shape; Self-contained air-cooled engine provides sufficient power ensuring required bale density;

According to machine operation conditions, the engine speed is controlled in the cabin, to control the picker speed and the piston reciprocating frequency;

The baling needle is sufficiently above the filed hence it can move smoothly and will not contact even the rugged field segments.

Four sets of spring-tooth beams are installed in the picker, increasing feed amount and efficiency. In addition, the picker can move according to terrain. The picking is thorough;

The machine can operate in harsh climate.

主要技术指标

捡拾器内侧幅宽	1970 mm
草捆尺寸 (高×宽×长)	380×560× (350~1300) mm
成捆率	≥98%
草捆密度 (牧草含水率为 17%~23%)	130~230 kg/m ³
自带发动机功率	≤50 kW
系统电压	24V
外型尺寸 (长×宽×高)	7250×2650×1750 mm
整机重量	3850 kg

Main technical indicators

Inner picker width	1970 mm
Bale dimensions (H×W×L)	380×560× (350~1300) mm
Successful baling ratio	≥98%
Bale density (water content of pasture 17%~23%)	130~230 kg/m ³
Self-contained engine power	≤50 kW
System voltage	24V
Machine dimensions (L×W×H)	7250×2650×1750 mm
Machine weight	3850 kg

2.5 9YG-1.4/1.2 圆草捆卷捆机 2.5 9YG-1.4-1.2 Round Baler



产品简介

9YG-1.4 型圆草捆打捆机是牧草成捆收获机械，主要用于田间各种牧草和稻、麦等农作物秸秆的收获。它可将田间铺放的草条自动捡拾起来，通过输送喂入、压缩成形、捆扎等作业工序，把散状饲草捆扎成外形整齐规则的圆形草捆，便于运输、贮存。

该机与 35 马力以上轮式拖拉机配套，由拖拉机驾驶员一人操作，适合于各类天然草场和种植草场，以及农田作业，也适合于在场地由人工或其它方式喂入进行固定作业。

Product Introduction

9YG-1.4 round baler is a pasture baling machine. It can harvest various pastures in the field and stalks of rice and wheat. In addition, it can pick up the windrow spread in the field. Through the processes of feeding, compaction and baling, uniform round bales are formed, which are easy to transport and store.

The machine is towed by a wheeled tractor more than 35 hp in power. The tractor and the machine are driven by a driver. The machine can be used on various natural and cultivated grasslands, or in the field. In some cases, the machine can be used at a fixed site, with manual feeding or other types of feeding.

主要技术指标

草捆直径 (φ)	1400/1200mm
草捆长度 (L)	1400/1200mm
机具重量	2200kg
配套动力	35 马力以上轮式拖拉机

Main technical indicators

Bale diameter (φ)	1400/1200mm
Bale length (L)	1400/1200mm
Machine weight	2200kg
Matched power	Wheeled tractor with power greater than 35hp.

2.6 9YFE-450 型二次饲草压缩机 2.6 9YFE-450 forage compressor



产品简介

9YFE-450 型二次饲草压缩机是融机械、电子、液压等技术于一体的先进牧草设备，对牧草和秸秆进行二次高密度压捆。

Product Introduction

This machine is a advanced forage equipment that combines machinery, electronics and other technologies and can proceed the secondary high density baling for forage and straw.

主要技术参数

整机外型尺寸 (长 × 宽 × 高) (mm):
5300 × 2700 × 1750
整机重量 (kg): 4000
成品草捆密度 (kg/m³): 280 ~ 400
电机功率 (kW): 22

Maintechnicalparameters

Overall dimensions(mm): 5300x2700x1750
Total weight(kg): 4000
Bale density(kg/m³): 280-400
Motor power(kW): 22

2.7 9GBQ-3.0 切割压扁机

2.7 9GBQ-3.0 Mower Conditioner



产品简介

该机适合于收获高产、多水分的种植牧草和高秆牧草。它可以同时完成切割、压扁、集拢铺条三种工序，这种“三合一”的作业机具不仅可以节省劳动时间，降低作业成本，减少土地被压实的次数有利于牧草生长，而且可以促使牧草迅速均匀的干燥，缩短田间晾晒时间，减少花叶损失，提高牧草质量。

Product Introduction

The machine is suitable for harvesting planted prolific watery pasture, including high-stalk pasture. It can perform three processes simultaneously: cutting, crushing and swathing. This feature can save labor duration, lower operation cost, reduce land compaction, thus facilitate pasture growth. The harvested pasture can dry rapidly and uniformly, shortening the period of wilting in the field, accordingly reducing leaf-and-flower loss and improving pasture quality.

主要技术指标

草条宽度	1.1-1.9m
压辊转速	900r/min
拔禾轮转速	54-78r/min
配套动力	26kw
割茬高度	28~127mm
割幅	3.0m
动力输出轴转速	540r/min

Main technical indicators

Windrow width	1.1-1.9m
Compression Roller speed	900r/min
Harvester reel speed	54-78r/min
Matched Power	26kw
Stubble height	28~127mm
Cutting width	3.0m
Power take-off shaft speed	540r/min

2.8 9LZ-6.0 指盘式搂草机 2.8 9LZ-6.0 disc rake



产品简介

该机结构简单，操作方便，使用可靠，故障少，功效高，作业质量好。保养简便，动力配套性能好。并且既能搂草，又可进行翻晒作业（可将搂集成条的草条重新摊开）。

出口业绩

2013 年出口至朝鲜。

Product Introduction

The machine is simple in construction and easy to operate. The machine features high reliability, low failure rate, high efficiency, good performance, and easy maintenance. The machine can perform raking and tedding. It can spread the windrow as formed by raking. The tractor is powerful.

Export Performance

Exported to Korea in 2013.

主要技术指标

搂草机搂草轮轮数	8
运输状态宽度	3.1m
最小液压要求	1,000psi
重量	540kg
最小拖拉机匹配马力(发动机)	35 马力
作业幅宽	6m
外形尺寸	4500×6000×1700 (mm)

Main technical indicators

Number of raking wheels	8
Transport width	3.1m
Minimum hydraulic pressure	1,000psi
Weight	540kg
Minimum matched tractor power (engine)	35 HP
Operating width	6m
Overall dimensions	4500×6000×1700 (mm)

2.9 9JK-2.7 型小方草捆捡拾车 2.9 9JK-2.7 Square balepick-up



产品简介

9JK-2.7 型小方草捆捡拾车可实现小方草捆从地面捡拾装车并运至贮草点的作业环节的机械化操作。

Product Introduction

9JK-2.7 type of small square bale pickup is designed for picking up loading and conveying small square bale from field to save-up site.

主要技术参数

升运器宽度 (mm): 547
升运器平台高度 (m): 2.7
牵引架导向段开口宽度 (m): 1.11
生产率 (捆 / 小时): 捡拾升运 250

Main technical parameter

Elevator width(mm): 547
Elevator platform height(mm): 2700
Hatch width of traction frame guider(mm): 1110
Productivity(bale/hour): 250

出口业绩

2013 年出口至朝鲜。

Export Performance

Exported to Korea in 2013.

2.10 9CJ-3.0 型散草捡拾运输车 2.10 9CJ-3.0 Scattered grass pick-up truck



产品简介

9CJ-3.0 型散草捡拾运输车与 40kw 以上拖拉机配套牵引作业，用于散状牧草和农作物秸秆的收获。

Product Introduction

9CJ-3.0 type of bulk grass pickup conveyer is drawn by tractor with PTO40kW. It is used for harvesting bulk herbage and crop straw.

主要技术参数

工作幅宽 (mm): 1600
弹齿间距 (mm): 61
配套动力: 40kW 以上, 传动轴转速 540r/min 拖拉机
准许载重量 (kg): 3000

Main technical parameter

Working breadth(mm): 1600
Spring-tooth spacing (mm): 61
Matched power(kW): ≥ 40 drive shaft speed (Tractor):540rpm
Allowable load (kg): 3000

2.11 9GZ-0.5 自走式灌木平茬收割机

2.11 9GZ-0.5 type Self-propelled Shrub Harvester



产品简介

9GZ 系列自走式灌木平茬机适合拧条、沙柳等各种灌木的收割；其可以根据不同的地形进行仿形切割，且割茬平整，切割过程不易出现扯皮现象，切割效率高，割完后灌木再萌能力增强。

其次主机还可以挂接相应的铲斗和夹草爪，可以真正的实现一机多用，最短的时间内帮您收回成本，是您增产增收的好帮手。

Product Introduction

9GZ series self-propelled brush cutters are suitable for cutting various bushes including korshinsk peashrubs and sand willows. These cutters can adjust cutting height according to terrain. The stubbles are uniform. Incomplete cutting seldom occurs. The cutting efficiency is high and stubbles have increased capability of sprouting.

A scraper bucket or grass claw can be attached to the machine. Thus one machine can fulfil multiple functions. The payoff period is minimized. By highly efficient cutting, you can reap more benefits.

主要技术指标

性能参数	9GZ-1.0 自走式灌木平茬收割机
外形尺寸 (长×宽×高)	6300 mm×1740 mm×2650 mm
配套动力	59 千瓦
锯片转速	0-1800 r/min
锯盘直径	510 mm
锯盘中心距	500 mm
锯盘个数	1 个
最大举升切割高度	2700 mm
浮动弹簧最大行程	200 mm
机器总重	4100kg
液压驱动最大压力	25mpa
传动方式	皮带传动结合齿轮传动
皮带规格	B 型
皮带数	6 根
纯切割燃油消耗率	≤110g/m ²
最大割幅	2.2 m
最大爬坡力	35°
最小转弯半径	4.8 m
行驶速度	0-24km/h
工作速度	0-1 , 0-6km/h

Main technical indicators

Performance parameters	9GZ-0.5 self-propelled brush cutter
Overall dimensions (L×W×H)	6300mm×1740mm×2650mm
Matched Power	59 kW
Blade speed	0-1800r/min
Blade diameter	510 mm
Blade center-to-center distance	500 mm
Number of blades	1piece
Maximum cutting height	2700 mm
Maximum stroke of float spring	200 mm
Machine weight	4100 kg
Maximum hydraulic drive pressure	25 MPa
Transmission mode	Belt transmission and gear transmission
Belt specification	B
Number of belts	6 pieces
Fuel consumption in case of pure cutting	≤110g/m ²
Maximum cutting width	2.2 m
Maximum Gradeability	35°
Minimum turning radius	4.8 m
Traveling speed	0-24km/h
Operating speed	0-1, 0-6km/h

2.12 9GZ-1.0 自走式灌木平茬收割机

2.12 9GZ-1.0 type Self-propelled Shrub Harvester



产品简介

9GZ 系列自走式灌木平茬机适合拧条、沙等各种灌木的收割；其可以根据不同的地形行仿形切割，且割茬平整，切割过程不易出扯皮现象，切割效率高，割完后灌木再萌能增强。

其次主机还可以挂接相应的铲斗和夹草爪，可以真正的实现一机多用，最短的时间内帮您收回成本，是您增产增收的好帮手。

Product Introduction

9GZ series self-propelled brush cutters are suitable for cutting various bushes including korshinsk peashrubs and sand willows. These cutters can adjust cutting height according to terrain. The stubbles are uniform. Incomplete cutting seldom occurs. The cutting efficiency is high and stubbles have increased capability of sprouting.

A scraper bucket or grass claw can be attached to the machine. Thus one machine can fulfil multiple functions. The payoff period is minimized. By highly efficient cutting, you can reap more benefits.

主要技术指标

性能参数	9GZ-1.0 自走式灌木平茬收割机
外形尺寸 (长×宽×高)	6300mm×1740mm×2650mm
配套动力	59 千瓦
锯片转速	0-1800 r/min
锯盘直径	510 mm
锯盘中心距	500 mm
锯盘个数	2 个
最大举升切割高度	2700 mm
浮动弹簧最大行程	200 mm
机器总重	4100kg
液压驱动最大压力	25mpa
传动方式	皮带传动结合齿轮传动
皮带规格	B 型
皮带数 (根)	6 根
纯切割燃油消耗率	≤110 g/m ²
最大割幅	2.5 m
最大爬坡力	35°
最小转弯半径	4.8m
行驶速度	0-24 km/h
工作速度	0-1 , 0-6km/h

Main technical indicators

Performance parameters	9GZ-1.0 self-propelled brush cutter
Overall dimensions (L×W×H)	6300mm×1740mm×2650mm
Matched Power	59 kW
Blade speed	0-1800 r/min
Blade diameter	510 mm
Blade center-to-center distance	500 mm
Number of blades	2 pieces
Maximum cutting height	2700 mm
Maximum stroke of float spring	200 mm
Machine weight	4100 kg
Maximum hydraulic drive pressure	25MPa
Transmission mode	Belt transmission and gear transmission
Belt specification	B
Number of belts	6pieces
Fuel consumption in case of pure cutting	≤110g/m ²
Maximum cutting width	2.5m
Maximum Gradeability	35°
Minimum turning radius	4.8m
Traveling speed	0-24 km/h
Operating speed	0-1, 0-6km/h

2.13 方草捆机系列

2.13 Squarebale Binding Machine



产品简介

该机型适用于天然牧草、种植牧草、湖草、麦秸、稻草以及豆类作物的打捆作业。由拖拉机牵引作业，整个作业程序连续、准确、可靠，打成的草捆密度高、长度可调，便于运输、存放，对农牧区的牧草适时收获、作物茎秆的有效利用以及抗灾保畜，有着极其重要的意义。

Product Introduction

The model applies to natural grass, pasture, lakegrass, wheat straw, rice straw and legume crop baling operations. Worked after a tractor, the entire procedure is continuous, accurate and reliable. High bale density, length adjustable, easy to transport, storage. It has important significance for timely harvest, effective use of crop stalks, and resistance to disasters.

主要技术指标 Main technical indicators

型号 Model	单位 Unit	9YFQ1.5A	9YFQ2.0
配套动力 Matched power	KW	≥30	≥30
输出轴转速 Take-off shaft speed	rpm	540	540
捡拾工作宽度 Pickup width	mm	1600	2000
草捆尺寸 Bale size	mm	360×460	360×460
长度 Length	mm	400-1300	400-1300
外型尺寸 Dimensions	mm	4850×2400×1600	4850×2860×1600
机器重量 Total weight	kg	1500	1520

2.14 92YG 系列圆捆机

2.14 92YG Round balebaling machine



产品简介

该机不仅适合于天然牧草和种植草（苜蓿），也适合于湖草、毛芦苇、麦秸和稻草以及豆类物茎秆等的卷捆作业。可自动完成捡拾喂入、卷捆压实、布绳捆草、卸草捆等作业。整个作业程序连续，准确可靠，卷成的圆草捆外紧内松，透气性好，在露天存放能抵御风雨侵蚀，便于长期储存。

Product Introduction

It is not only suitable for native pasture and planting grasses (alfalfa), but also for lake grass, reed, wheat straw, as well as legumes baling operations. This can be done automatically picking up, baling, unloading bales. The whole process is continuous, accurate and reliable. The bale is breathable, in open storage that can withstand wind and rain erosion, easy to long-term storage.

主要技术指标 Main technical indicators

型号 Model	单位 Unit	92YG0.9	92YG1.5
配套动力 Matched power	KW	28-40 轮式拖拉机 28-40 roller tractor	40KW 轮式拖拉机 40KW roller tractor
输出轴转速 Take-off shaft speed	rpm	540	540
捡拾工作宽度 Pickup width	mm	1550	1550
生产率 Productivity	捆/小时 Bales/H	15-30	12-24
搅捆绳品种 Rope varieties		麻绳、化纤绳 Hemp rope, Chemical fiber rope	麻绳、化纤绳 Hemp rope, Chemical fiber rope
草捆尺寸 Bale size	m	Φ 0.9×1.23	Φ 1.5×1.23
草捆重量 Bale weight	kg	90	150
外型尺寸 Dimensions	mm	3600×2330×2100	4200×2330×2610
机器重量 Total weight	kg	1500	2000
轮距 Tread	mm	2040	2040

2.15 1BQ-3、1BQ-4 动力驱动耙 2.15 1BQ-3, 1BQ-4 Power Harrows



产品简介

该机型耙刀数量多、碎土效果好，结实耐用、性能稳定，主要用于二次耕作和种床准备。

Product Introduction

It has a lot of rakes, good pulverizer effect, durable, stable performance, mainly for secondary tillage and seed bed preparation.

主要技术指标 Main technical indicators

型号 Model	1BQ-3	1BQ-4
外型尺寸 (长×宽×高) Dimensions	1500×3000×1250	1500×4100×1200
作业幅宽 Working Range (mm)	3000	4000
耙刀数 Number of rakes	20 (2×10)	28 (2×14)
设计耙深 Design of harrow depth (mm)	30-180	30-180
配套动力 Matched power (kW)	80-184	118-184
动力输入轴转速 Power input shaft speed (r/min)	1000	1000
整压辊直径 Compression Roller diameter (mm)	Φ510	Φ510
挂接型式 Suspension type	后三点悬挂 3-point links	后三点悬挂 3-point links
重量 (kg) Total weight	1450	2000

2.16 92GZX-0.9、1.7、2.5 系列旋转割草机
2.16 92GZX-0.9, 1.7, 2.5 Rotary mower



产品简介

主要用于各类牧草的收割。采用后侧悬挂，以动力输出轴带动旋转式切割器高速作业，割茬低，对地表具有良好的仿型能力，强制分禾，不会产生牵挂、堆堵等现象。结构简单紧凑，使用可靠，调整及保养简便。特别适宜收割高产、茂密趋于倒伏的种植牧草，如高产苜蓿等。

Product Introduction

Mainly used for various types of forage harvesting. Using the rear suspension to the power output shaft driven rotary cutter high-speed operation, low-cut stubble on the surface with good profiling capabilities, force of bluegrass, no pile blocking. Simple and compact structure, reliable, easy adjustment and maintenance. Particularly suitable for high-yield harvest, lush pasture tends to lodging, such as high-yielding alfalfa.

主要技术指标

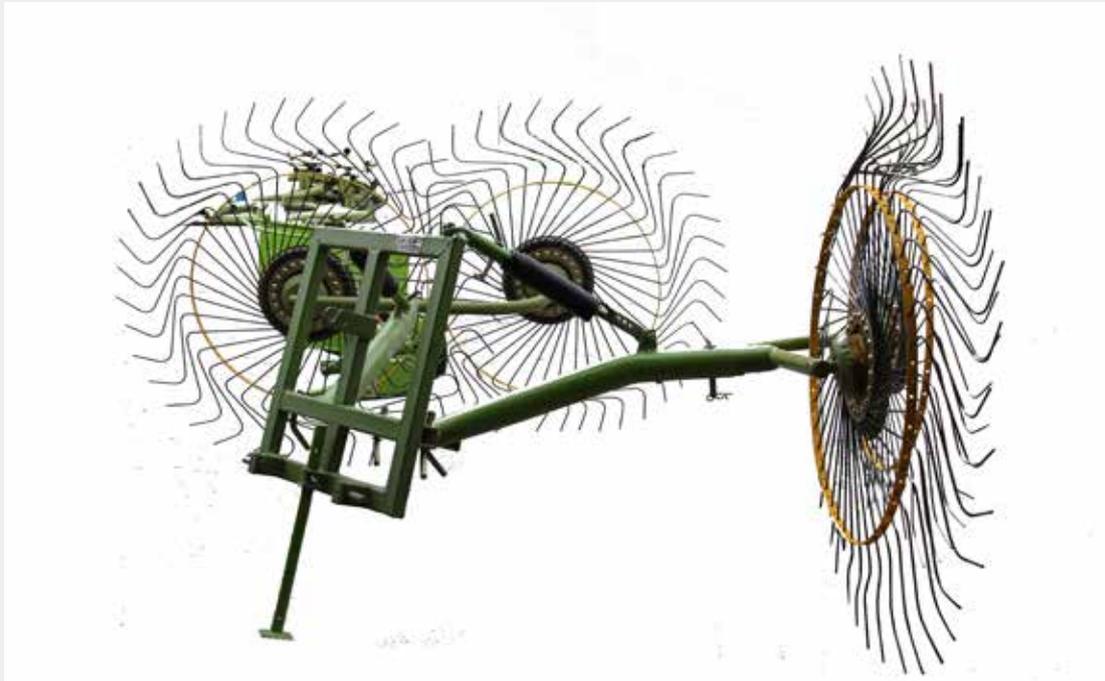
型号	单位	92GZ-0.9	92GZ-1.7	92GZ-2.5
工作幅宽	m	0.9	1.7	2.5
割茬高度	cm	<8 (可调)	<8	<8
配套动力	KW	18 马力以上轮式拖拉机	>30 (40-50ps 以上轮式拖拉机)	40-48 (55-56 马力以上轮式拖拉机)
生产率	公顷/小时	0.2-0.6	1-1.6	2-2.4
刀盘数	个	2	4	6
切割刀片数	个	4	8	12
输出转速	rpm	540	540	540
工作转速	rpm	3500	2640	2640
机器重量	kg	200	300	350

Main technical indicators

Model	Unit	92GZ-0.9	92GZ-1.7	92GZ-2.5
Working range	m	0.9	1.7	2.5
Stubble height	cm	<8 (Adjustable)	<8	<8
Matched power	KW	Above 18 HP wheeled tractor	>30 (40-50 HP wheeled tractor)	40-48 (55-56 HP wheeled tractor)
Productivity	hm ² /h	0.2-0.6	1-1.6	2-2.4
Number of cutters		2	4	6
Number of cutting blades		4	8	12
Output speed	rpm	540	540	540
Working speed	rpm	3500	2640	2640
Total weight	kg	200	300	350

2.17 9LZ-3.0、4.0、4.8 系列指盘搂草机

2.17 9LZ-3.0, 4.0, 4.8 Disc Rakes



产品简介

适合悬挂在轮式拖拉机的三点悬挂装置上，用于搂各种秸秆、牧业用草、残膜等。结构简单，操作方便，可靠性高、自动仿形、保养简便。

Product Introduction

Suitable for wheeled tractors articulated in three-point suspension on the device, which is used to pick up all kinds of straw, animal husbandry with grass, plastic film and so on. Simple structure, easy operation, high reliability, simple automatic profiling and maintenance.

主要技术指标 Main technical indicators

型号 Model	单位 Unit	92LZ-4.8	92LZ-4.0	92LZ-3
工作幅宽 Working range	m	≥4.8	≥4	≥3
配套动力 Matched power	kw	40	20	15
生产率 Productivity	hm ² /h	3-5	1.5-3.5	1
指盘数 Number of plates		8	6	4
指盘直径 Plate diameter	m	1.46	1.46	1.46
草条宽度 Windrow width	m	1-1.5	1-1.5	0.9-1.2
漏搂率 Loss rate	m	≤1%	≤1%	≤1%
机器重量 Total weight	kg	345	295	150

2.18 小方捆打捆机

2.18 Small Rectangular Balers



产品简介

- ◆ 采用进口打结器，打结稳定
- ◆ 正时采用齿轮转动，准确可靠
- ◆ 填料拨叉交错排列，喂入流畅
- ◆ 可升降仿形捡拾台，损失率低
- ◆ 适用于玉米，小麦，水稻等农作物秸秆以及牧草等

的打捆作业

Product Introduction

- Adopting imported knotter, and knot is reliable
- Using gear transmission, it is more accurate and reliable
- The stuffing forks are interlaced so that ensuring the smooth feeding
- Equipped with gauge wheels, the loss rate reduced
- Can be used for maize, wheat, rice and other crop straw, forage bale operation

主要技术指标 Main technical indicators

名称/Items	单位/Unit	指标值/Index values	备注/Remarks
打捆尺寸(宽×高×长) / Bale size(W×H×L)	mm	460×360×(400~1100)	长度可调 adjustable
配套动力/ Matched power	kW/hp	44/60	
捡拾器幅宽/ Pickup width	mm	1850	
喂入器:(曲轴)拨指/ Feeder crankshaft	齿	3	2组/Two groups
打结器数/ No. of knotter	-	2	
绳箱容积/ Rope box cubage	卷 roll	8	
外形尺寸(长×宽×高) / Dimensions (L×W×H)	mm	5200×2700×1600	不含滑道/Not including slideway
重量/ Weight	kg	1800	约/about

2.19 大中型方捆打捆机

2.19 Large & Middle Scale Rectangular Baler



产品简介

- ◆ 采用进口双结打结器，可靠性高
- ◆ 打捆密度动态自动调控，密度均匀
- ◆ 配备捡拾液压仿形，损失率低
- ◆ W形动刀与定刀结合，揉搓切碎，均匀喂料

Product Introduction

- Using imported double knotter and obtained reliable performance
- Bale's density can be automatically controlled, and homogenous density can be obtained
- Ground-contour-following device is equipped so that it has low loss rate
- W-type moving knife combined with fixed knife to chop the straw into pieces and improved the feeding uniformity

主要技术指标 Main technical indicators

项目/Items	单位/Unit	型号/Model	
		9YF-120	9YF-90
整机尺寸(长×宽×高) / Dimensions (L×W×H)	mm	7600×3130×3150	7600×3000×3050
配套动力/ Matched power	kW / hp	132/180	118/160
捡拾工作宽度/ Pickup width	mm	2300	1970
打结器/knotter 进口双节打结器 / Imported double knotter	个/number	6	4
打捆截面(宽×高) / Bale size (W×H)	mm	1200×900	800×900
打捆捆长度(可调)/ Bale Length (Adjustable)	mm	1300~2700	1000~1800
打捆容重/ Bale density	kg/m ³	190~210	150~180
整机重量/ Weight	kg	8500	8000

2.20 栅栏式搂草翻晒机 2.20 Fence Type Hay Rake



产品简介

- ◆ 偏置式地轮仿形，避免杂物，搂集干净
- ◆ 工作幅宽可以自由调节
- ◆ 适合水稻，小麦秸秆，牧草等的搂集

Product Introduction

- Ground-driven, without sundries, raking clean
- Operating width can be adjusted freely
- It is used for rice, wheat straw and grass raking

主要技术指标 Main technical indicators

名称/Item	单位/Unit	指标值/Index
配套动力/Matched power	hp	≥55
捡拾幅宽/Pickup width	mm	5076
轮距/Distance of tire	mm	1676
弹齿数/Spring tine	-	180
作业速度/Operating speed	km	3-15
搂铺方向/Raking direction	-	左侧/left
整机重量/Total weight	kg	1200
外形尺寸（长 x 宽 x 高）/Dimensions (LxWxH)	mm	7675x5506x1730

2.21 切枝机

2.21 Brush Chippers



产品简介

- ◆ 模块化设计，维修保养方便
- ◆ 全过程的自控系统，动力与负荷达到实时匹配，节省能耗，并避免堵塞和卡料
- ◆ 特制钢强化工艺，刀具耐磨，寿命长
- ◆ 长进料台，底部供料停止杆，双重安全保护
- ◆ 切碎成品大小均匀，形状规则

Product Introduction

- Modular design, convenient repair and maintenance
- All automatic control system, power and load matching saving energy
- Special intensive process, knife wear and long life
- Long feeding platform, bottom feed stop bar, dual security protection
- Chopped finished size uniformity regular

主要技术指标 Main technical indicators

名称/Items	单位/Unit	指标值/Index values
配套动力/ Matched power	kW	柴油机: diesel engine: 60 电机: electrical engine: 75
工作效率/ Operational efficiency	t/h	3~6
最大喂入直径/ Maximum feeding diameter	cm	25
动刀数/ No.of the cutter	片/Piece	2
整机重量/ Total weight	kg	2600
传动方式/ Transmission mode	-	五联橡胶带+无离合器 PTO Five rubber belt+without clutch
油箱容积/Fuel tank capacity	L	90
液压油箱容积/ Hydraulic oil tank capacity	L	30
外形尺寸(长×宽×高) / Dimensions (L×W×H)	mm	喂料平台收起: 4200×1800×2600 Feeding platform folded 喂料平台打开: 4700×1800×2600 Feeding platform open

2.22 全混合日粮搅拌喂料车

2.22 TMR Complete Diet Mixer/Feeder



产品简介

牵引立式全日粮搅拌喂料车是用于制备奶、肉牛等反刍动物全混合日粮（TMR）的机器，它的功能是把牛日粮配方中各类饲料原料精确计量并进行切碎、混合、搅拌，是现代牧场 TMR 技术的关键设备。TMR 的采用可从根本上抑制牛胃酸中毒的问题；可增进采食量；提高牛身体健康状态；对奶牛产奶量、肉牛的催肥都有很大帮助。

出口业绩

截止 2013 年为止，该设备在出口超过 90 台套，分别销售至菲律宾、越南、韩国、朝鲜等国家。

Product Introduction

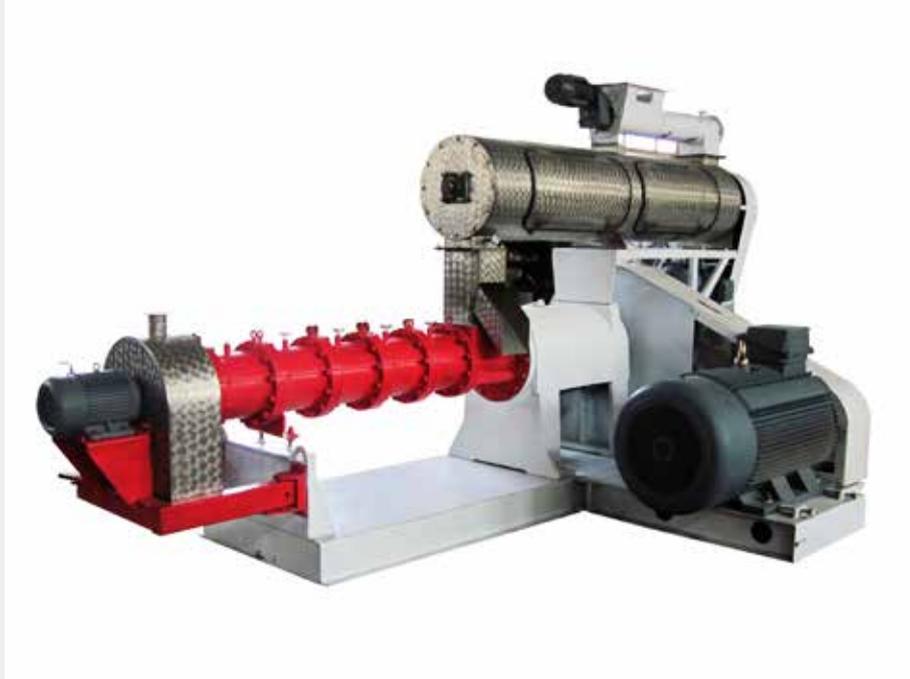
VMT mixers are vertical complete diet mixers, especially aim to meet the high efficiency feeding requirements in modern dairy and beef farm. The feeder is developed based on the concept of TMR which is the feeding principle for ruminants.

Export Performance

Until 2013, this type of equipment have been sold over 90 in Philippines, Vietnam, South Korean, North Korean etc.

2.23 饲料膨化机

2.23 Multi-function Extruders for Feed



产品简介

功能膨化机是一种多功能湿热加工设备，通过调整配置，既可膨化配合饲料，也可膨化大豆、玉米、小麦、米糠、饼粕、动物蛋白等各种原料，从而杀灭有害细菌，钝化抗生长因子，提高饲料转化率。产品最大加工量可以达到 10 吨 / 小时。

出口业绩

截止 2013 年为止，该设备出口超过 80 台套，分别销售至印度尼西亚、菲律宾、越南、日本、韩国、朝鲜等国家。

Product Introduction

Multi-function Extruders can process not only compound feed, but also different feed ingredients like soybean, corn, wheat, rice bran, various plant and animal proteins through simple change of part configurations for the purpose of destruction of microbes, inactivation of anti-nutritional factors and Improved FCR. The maximum production could reach the 10t/h.

Export Performance

Until 2013, this type of equipment have been sold over 80 in Indonesia, Philippin ves, Vietnam, Japan, South Korean, North Korean etc.

2.24 9TXS-9.0 型钢屋架采暖畜舍 2.24 9TXS-9.0 Barn with Heating



产品简介

该产品的结构特点是：它由钢结构件、墙板、门、窗、栅栏等组成模块化的畜舍主体，可根据用户养殖需求利用上述通用的，模块化的构件组合成不同跨度、不同长度、不同排列式的畜舍。畜舍用风能、太阳能采暖装置也采用模块化，可根据当地气候条件、畜禽对舍温要求将风能、太阳能采暖单元模块组合配置安装。

Product Introduction

It consists of steel structure, wall Panels, doors, windows, fences and other components modular barns body.

According to user needs can be combined into different breeding span different lengths, and different arrangement barns, using the general-purpose modular components. Wind, solar heating devices are also used in mining barn , according to local climatic conditions, livestock Sherwin requirements for wind energy, solar heating unit module combination configuration installation.

主要技术指标 Main technical indicators

宽 Width	9m
高 Height	2.5m
长 Length	根据用户要求 According to user requirements
风、太阳能采暖设施 Wind, solar heating facilities	根据用户要求 According to user requirements

2.25 9CK-9.0 储草库 2.25 The 9CK-9.0 grass storage



产品简介

9CK-6.0 储草库是一种安装方便模块化钢结构建筑，由通用立柱、人字架、镀锌彩板、护栏等组成。产品结构简单、方便实用、受到了广大牧民的欢迎。顺应广大用户的要求该产品分半封闭和敞开式两种。该产品并获得了国家补贴。

Product Introduction

The 9CK-9.0 grass storage is a modular steel structure building easy to install. It consists of general column, Renzi Jia, galvanized color plates and other components. The product structure is simple, convenient and practical, welcomed by the majority of pastoralists. They are partakers semi-closed and open type two, follow the requirements of customers. The products obtained national subsidies.

主要技术指标 Main technical indicators

宽 Width	6m
高 Height	4m
长 Length	根据用户要求 According to user requirements

2.26 9L-2.0 畜舍围栏 2.26 9L-2.0 Fence for the barn



产品简介

室内外围栏采用焊接网围栏，拆装方便、便于运输，价廉、实用，圈门设接收装置数羊。围栏可任意布置、适应不同的养殖模式、牧户可根据自身情况设置围栏。

Product Introduction

It is welded mesh fence, easy disassembly, easy to transport, cheap, practical, the door installed a device to receive the number of the sheep. Fence can be arbitrarily arranged to adapt to different breeding patterns, it also can be set according to the requirements of the pastoralists

主要技术指标 Main technical indicators

网片尺寸 (高×宽) Mesh Panels Size (H × W)	2000 × 3000(mm)
网孔尺寸 (高×宽) Mesh size (H × W)	100 × 50(mm)
立柱直径 Column diameter	48mm
立柱直径厚度 Column diameter thickness	1.5mm
矩形截面管边框 Rectangular section tube frame	20 × 30(mm)
矩形截面管厚度 Rectangular section tube thickness	1.2mm

3. 农产品加工工程

3. Agro-processing projects

3.1 GLC 型链板式干燥机

3.1 GLC Series Dryer



产品简介

广泛应用于果干、脱水蔬菜、农副产品及饲料、化工原料及医药等加工丁、片、条、块和颗粒状物料的脱水干燥作业。尤其针对蒜片、洋葱和苹果丁等物料的干燥加工。

GLC 型链板式干燥机具有生产能力大、耗能低、加热均匀、易清洗和干净卫生等特点，日处理大蒜和洋葱原料 100 吨，适合于大规模连续化生产。

采用冲孔链板网带，具有承载能力大、不变形、穿流风均匀等特点。该机喂料采用擦拭喂料器，铺料均匀，幅宽可调整，物料厚度可调等特点。同时可选配物料打散装置、链板冲洗装置、凸轮刮板装置、螺旋卸料装置等附加装置。

采用分段干燥原理，由 3~4 工作干燥段组成。每段又分为 2~4 干燥区间，各干燥区间的气流可单独循环，温度控制和定量排潮均可独立控制，物料厚度逐步增大，最大厚度可达 600mm 以上。并结合 PLC 触摸屏智能控制系统，能充分发挥干燥机性能，获得好的产品品质和高的生产能力。

Product Introduction

GLC series dryers are widely used in the fields of dried fruit, evaporated dehydrated vegetable, agricultural products and by products, feed, chemical industry and medicine industry and are suitable for drying of flaked, striped, cube and granule material, especially for garlic chips, onion and apple cubes.

GLC series dryers has the characteristics of big production, low energy consumption, heating evenly and easy to clean. Daily processing capacity to garlic chips or onion is 100 tons each day, so these dryers fit for large-scale continuous production.

By punching hole technology used, chain plate of GLC series dryers has the characteristics of bigger Load-bearing, no distortion and airflow evenly. The scraper feeding machine which is used in GLC series dryers has the characteristics of making material even, adjustable material width and thickness.

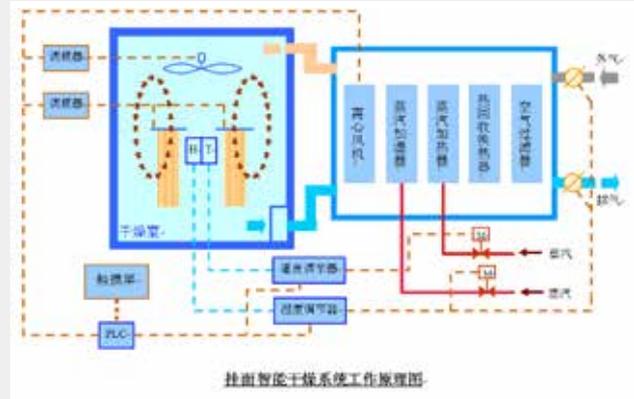
GLC series dryers has 3~4 sections and each section has 2~4 units. Each unit can respectively control temperature and moisture according to condition. In the drying processing, the thickness of material layer increases progressively, up to more than 600mm. By PLC control system adopted, it make drying more efficient, gets better quality of products and get excellent economic benefit.

产品技术参数 SPECIFICATION

整机型号 Model	GLC-15	GLC-24	GLC-38
外形尺寸 (mm) Size	60000x2700x3500	60000x3600x3500	60000x5200x3500
装机容量 (kW) Power	120	175	275
工作幅宽 (m) Work Width	1.5	2.4	3.8
摊料面积 (m ²) Materials Area	70	114	180
生产能力 (kg/h) Capacity	175~480	280~750	450~1250
蒸发能力 (kg/h) Evaporation Capacity	750~1250	1200~2000	2500~3200
蒸汽工作压力 (MPa) Stream Pressure	0.6~1.0	0.6~1.0	0.6~1.0
耗汽量 (kg/h) Steam Consumption	1200~2400	1900~3750	4000~6000

3.2 智能化挂面干燥系统

3.2 Intelligent noodles drying system



产品简介

1、全封闭干燥空间：各干燥室相对独立、互不干扰，双层复合板保温，进出干燥室的空气均经空调器处理，消除室内的正负压差，保证干燥环节的卫生安全。

2、产品合格率高品质稳定：即使进入干燥室最初的1列、最后1列以及因故障停机中间产生间断，也能保证在与连续生产时同样的干燥环境下进行，同时保证在不同季节、气候、天气条件下稳定干燥工艺，挂面产品品质高，提高合格率20%，质量稳定均匀。

3、节约能耗：通过对排气的热能回收、进排风量和温湿度按比例精确控制、以及采用全封闭保温干燥室，相对目前国内的干燥设备可节约能耗20%左右。

4、室内温湿度均匀稳定：通过风管将处理后的热风延干燥室长度方向均匀送入室内各处，由搅拌风扇与室内的空气混合后，再与物料接触；高湿的空气经风管返回空调器，一部分排到室外。

5、多品种对应：根据挂面品种的要求，可自由设定各干燥室的温度、湿度、搅拌风速和干燥时间。

6、全自动控制：室内温度、湿度、排潮、进气等均采用进口控制调节阀和元器件，按比例智能化控制，实现干燥室无人化管理。

7、智能化管理：人机对话型操作界面（触摸屏），实现各参数的设定、显示、记录和输出（数据或曲线），以及故障报警等。根据用户需要还可增设远程监控。

8、主要技术参数

产量：500—2000kg/h；

面条厚度：0.6—3.0mm；

适用类型：圆形、方形、长方形、椭圆形；

产品含水率：< 13.5%；

干燥室：3—4室（45℃ MAX），6—9室（70℃ MAX）；

配套制面机辊宽：450—1000mm；

Product Introduction

1. The completely closed drying space: The drying room is made of the double composite board; each room is relatively independent without being disturbing. The air in and out of the drying room must be treated by the air-conditioner in order to maintain the health and safety of dry process.

2. High quality and stability: The system can make the drying environment relatively stable, that make quality of noodles of originally a column, the last column and interrupt column be consistent. At the same time the system is not affected by season, climate and weather. The quality of noodles is stable and uniform, which improve the qualified rate about 20%.

3. Save energy: The drying system that is compared with the present domestic other systems can save energy about 20% because of using heat recovery, the precision control of temperature and humidity and relatively closed environment.

4. Indoor temperature and humidity stability: Through air duct the air of being processed is feed into the drying room everywhere along the length direction, and is mixed by stirring fan; then it contact with the material; at the same time, through air duct high humidity gas return to the air handler, and partly ruled out outdoor.

5. Multi-species correspondence: According to the requirements of noodle varieties, each drying room can be freely set temperature, humidity, wind velocity and drying time stirring.

6. Automatic control: All the control valve and components on temperature, humidity, and moisture removal are imported; and through the proportional control realize unmanned management.

7. Intelligent management: The operation interface is man-machine conversational (touch screen). Various parameters can be set, display, record, output (data or curve), failure warning, etc. At the same time user can add remote monitoring according to their needs.

8. The main technical parameters

Yield: 500-2000kg/h;

The thickness: 0.6-3.0mm;

Applicable Type: round, square, rectangular, oval;

Product moisture content: <13.5%;

Drying room: 3-4(45℃ Max), 6-9(45℃ Max);

The width of supporting noodle machine roller: 450-1000mm.

3.3.1 家禽屠宰加工设备及工程

3.3.1 Poultry slaughter and processing equipment and engineering



家禽屠宰线
poultry slaughter line



家禽悬挂输送线
overhead conveyor



浸腊熔蜡冷蜡机
automatic paraffin immersion and paraffin chiller unit



浸烫机
automatic scald machine



熟食加工
food processing



脱羽机
automatic plucker



螺旋预冷机
spiral chiller



冷库
cold storage



冷库机房
cold storage unit



冷库内
cold storage inside

产品简介

可提供先进的家禽屠宰、家畜屠宰、熟食加工及配套制冷专业化设计和生产装备，承接的工程项目遍布全国 20 多个省市。

性能数据

生产能力: 3000—12000 只/h 鸡, 1000—6000 只/h 鸭、鹅

用水量: 50—200 吨/小时鸡, 50—300 吨/小时水、鹅

用汽量: 500—2000kg/h

装机容量: 30—200kw

Product Introduction

We can provide users with specialization design and advanced equipment for poultry and livestock slaughtering, cooked food and refrigeration engineering. We have undertaken slaughter projects more than 20 Provinces and cities all over the country.

Capacity: 3000-12000birds/h, 1000-6000 ducks or geese/h

Water consumption: 50-200t/h(birds), 50-300t/h(ducks or geese)

Vapor consumption: 500-2000kg/h

Power: 30-200kw

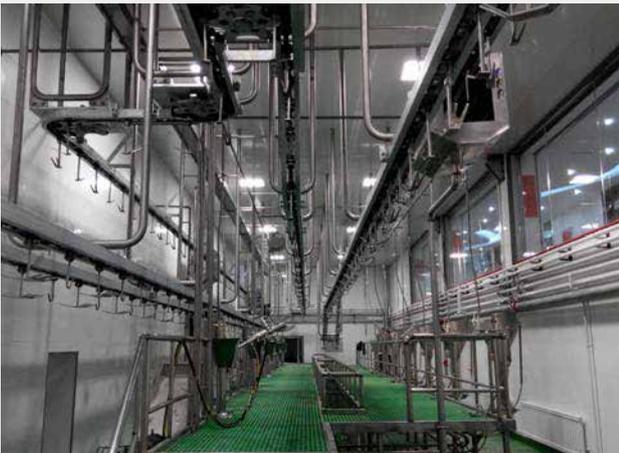
3.3.2 牛羊屠宰加工生产线成套设备 3.3.2 Livestock slaughtering line



肉牛屠宰线
cattle slaughtering line



肉牛屠宰线
cattle slaughtering line



羊屠宰线
sheep slaughtering line



羊扒皮机
sheep flaying machine

产品简介

牛羊屠宰加工生产线成套设备

生产能力：牛 15—45 头 / 小时；羊 100—300 只 / 小时

用水量：牛 1.0m³/头；羊 0.25—0.3³/只

装机容量：60—150kw

Product Introduction

Livestock slaughtering line

Capacity: 15-45cattles/h, 100-300sheeps/h

Water consumption: 1.0m³/cattle, 0.25-0.3m³/sheep

Power: 60-150kw

3.4 薯类深加工设备 3.4 Potato Processing Equipment

3.4.1 薯类精淀粉加工技术及成套装备 3.4.1 Potato, Sweet Potato And Cassava Root Starch Production Line



淀粉生产车间
Starch Processing Workshop



清洗机
Washer



锉磨机
Rasp



离心锥筛
Separator



全旋流工作站
Hydrocyclone Unit



真空脱水机
Vacuum Filter

产品简介

淀粉是高等植物中常见的成分，通过锉磨粉碎、筛分提取、浓缩、精制、脱水干燥等工序从原料中将淀粉提取出来。淀粉及其加工产品在食品、纺织、造纸、医药、化工等方面均有广泛的用途。

1. 工艺流程

去石→清洗→锉磨→筛分→提取、精制→脱水→干燥→称量→包装

2. 产品质量

马铃薯淀粉：符合 GB/8884-2007 标准

甘薯淀粉：

水分：≤ 15.0%

灰分（干基）：≤ 0.4%

蛋白质（干基）：≤ 0.4%

白度：≥ 90%

木薯淀粉：

水分：≤ 14.0%

灰分（干基）：≤ 0.2%

蛋白质（干基）：≤ 0.2%

白度：≥ 90%

Product Introduction

Starch is common in higher plants, raw material by rasping crushing, screening, extraction, concentration, dehydration, drying and other processes to extract starch. And its processed products is widely used in textile process, papermaking, medicine, Adhesives etc.

1. Processing Flow

2. Product Quality

Potato Starch: GB/8884-2007 Standard

Sweet Potato Starch :

Moisture Content : ≤15.0%

Ash Content : ≤0.4%

Protein Content : ≤0.4%

Whiteness : ≥90%

Cassava Starch :

Moisture Content : ≤14.0%

Ash Content : ≤0.2%

Protein Content : ≤0.2%

Whiteness : ≥90%

主要技术参数 Specification

鲜薯处理量 Raw Potato Input (t/h)	装机容量 Power (kW)	耗水量 Water Consumption (t/h)	耗气量 (0.8MPa) Steam Consumption (t/h)	车间面积 Workshop Area (m ²)
10	420	30	1.5	600
20	900	60	3	800
30	1200	100	4	1000

3.4.2 速冻薯条加工技术及成套装备 3.4.2 French Fried Production Line



薯条生产车间
French Fried Processing Workshop



去皮机
Steam peeler



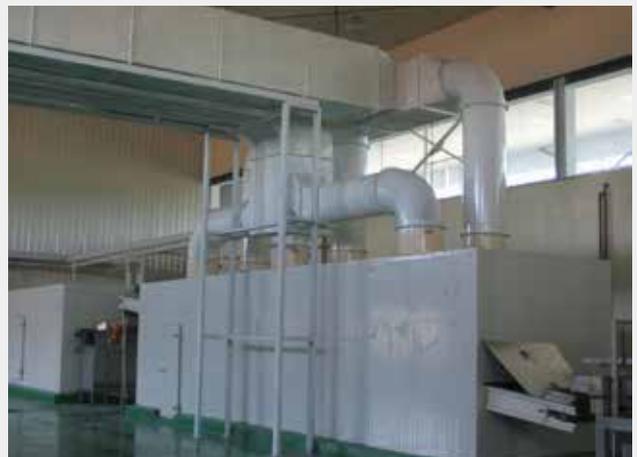
水力切条机
Hydro Cutting Machine



漂烫机
Blanching Machine



油炸机
Fryer



预冷机
Pe-cooling Machine

产品简介

薯条是西方国家的一种传统快餐食品，其加工已有上百年历史。薯条松脆酥香、鲜美可口、营养丰富，受到人们的喜爱。在欧洲马铃薯冷冻制品占其冷冻食品的 17.86%，其中主要是速冻马铃薯条。

1. 工艺流程

去石→清洗→去皮→修检→切条→分级→漂烫→调理→脱水→调质→油炸→沥油→预冷→速冻→称重→包装

2. 产品质量

水分：60-70%

脂肪：≤ 8%

色泽：呈白色或浅黄色，色泽均匀

气味：具有马铃薯的特殊香味，无异味

形态：冷藏状态下允许有稍微冻勃连和微量晶体

卫生指标：符合行业相关标准

原料：夏波蒂品种

Product Introduction

French fries is the tradition fast food in the western countries with hundred years of processing history. The savory,crisp and rich nutrition make French fries popular among people.In Europe,frozen potato productstake 17.86% of the total frozen foods,especially French fries.

1. Processing Flow

2. Product Quality

Moisture Content: 60-70%

Oil Content : ≤8%

Colour : White or Buff,uniform color

Odor : With the special aroma of potato , no other odors

Shape : Frozen State to allow a small number of bond

Hygienic Standard : Chinese relevant regulations

Stock: Shepody

主要技术参数 Specification

生产率 Capacity (kg/h)	装机容量 Power (kW)	耗水量 Water consumption (t/h)	耗汽量 (1.2MPa) Steam Consumption(t/h)	切条截面规格 Cutting Size (mm * mm)	车间面积 Workshop Area(m ²)
300	300	8	3	7*7, 7.5*7.5, 10*10	800
500	430	10	4	7*7, 7.5*7.5, 10*10	1000
1000	600	12	6	7*7, 7.5*7.5, 10*10	1200
1500	730	20	8	7*7, 7.5*7.5, 10*10	1500

3.4.3 薯类全粉加工技术及成套装备 3.4.3 Potato Flakes Production Line



全粉生产车间
Flakes Processing Workshop



去皮机
Steam peeler



水力输送系统
Hydraulic Transport



漂烫机
Blanching Machine



蒸煮机
Cooker



滚筒干燥机
Drum Dryer

产品简介

薯类全粉是将原料去皮后，经切片、蒸煮、制泥、干燥制成的，产品不仅很好保持了原料的风味和营养价值，同时也是一种低脂肪、低糖份的健康食品。

1. 工艺流程

去石→清洗→去皮→切片→水力输送→漂烫→调理→蒸煮→制泥→滚筒干燥→筛分→包装

2. 产品质量

容重：0.15-0.85 千克 / 升

水分含量：7-9%

淀粉游离率：≤ 15%

色泽：白色或浅黄色，均匀

形态：片状或粉状

气味：具有马铃薯特有的香味，无异味

卫生指标：符合行业相关标准

Product Introduction

The potato flakes & granules powder are manufactured by processing potatoes (peeling, cutting, cooking, mudding, and drying). The flakes keep the original flavor and nutrition of potatoes, and are popular food in the world due to low fat and sugar.

1. Processing Flow

2. Product Quality

Volume Weight : 0.15-0.85kg/L

Moisture Content : 7-9%

Starch Sissociation Rate : ≤15%

Colour : White or Yellow , uniform color

Shape : Flakes or Powder

Odor : With the special aroma of potato , no other odors

Hygienic Standard : Chinese relevant regulations

主要技术参数 Specification

生产率 Capacity (kg/h)	装机容量 Power (kW)	耗水量 Water Consumption (t/h)	耗气量 (1.2MPa) Steam Consumption (t/h)	车间面积 Workshop Area (m ²)
100	150	5	3	600
400	190	7	4	800
800	230	10	5	1000

3.4.4 油炸鲜薯片加工技术及成套装备 3.4.4 Potato Chips Production Line



薯片生产车间
Potato Production Workshop



去皮机
Steam peeler



切片机
Slicer



漂洗机
Blanching Machine



油炸机
Fryer



调味机
Seasoner

产品简介

油炸鲜薯片是将新鲜马铃薯洗净、去皮、切片后，经过油炸、调味而制成的小食品，它既保持了马铃薯特有的香味，又具有营养丰富、味美适口、卫生方便等特点，深受消费者的喜欢。

1. 工艺流程

去石→清洗→去皮→拣选→切片→漂洗→漂烫→脱水→油炸→沥油→调味→称重包装

2. 产品质量

水分：1 ~ 3%

脂肪：≤ 38%

色泽：呈白色或浅黄色，均匀

气味：具有马铃薯的特殊香味，无异味

卫生指标：符合行业相关标准

原料：大西洋品种

Product Introduction

The potato chips is one kind of snack processed from fresh potato chips after washing, peeling, slicing, frying and flavoring. It remains the special delicious flavor of roasted potato and has the characteristics of rich nutrition, delicious, Convenient on the other and thus won the favor of the Consumers.

1. Processing Flow

2. Product Quality

Moisture Content : 1~3%

Oil Content : ≤38%

Colour : White or Buff , uniform color

Odor : With the special aroma of potato , no other odors

Hygienic Standard : Chinese relevant regulations

Stock : Atlantic

主要技术参数 Specification

生产率 Capacity (kg/h)	装机容量 Power (kW)	耗水量 Water Consumption (t/h)	耗气量 (1.2MPa) Steam Consumption (kg/h)	车间面积 Workshop Area (m ²)
100	50	4	300	300
200	55	5	400	400
300	60	6	500	500

3.4.5 滚筒干燥机 (预糊化淀粉加工技术及成套装备)

3.4.5 Drum Dryer (Manufacture Gelatinized Starch Production Line)



产品简介

主要应用于预糊化淀粉、雪花全粉、蔬菜汁、骨泥、化工原料、咖啡、婴儿食品等气流干燥机难以烘干的膏状或浆状物料的烘干。整机由主滚筒、布料系统、气囊刮刀系统和自控系统组成。

Product Introduction

This machine can be used to dry gelatinized starch, potato flake powder, vegetable syrup, bone mud, chemical materials, coffee, baby food, and other paste material which is hard to dry by air steam dryer. The machine is consisted of main drum, applicator rolls, scraper system and automatic control system.

主要技术参数 Specification

型号 Model	生产率 Capacity (kg/h)	装机容量 Power (kW)	耗气量 (0.8-1.2MPa) Steam Consumption (t/h)	主滚筒尺寸 Drum Size (mm*mm)
GT6/8	25	7.5	0.05	600*800
GT15/20	60-80	40	0.3-1.0	1500*2000
GT15/30	150-180	55	0.4-1.5	1500*3000
GT15/40	200-240	65	0.5-2.0	1500*4000
GT20/40	200-350	85	0.7-2.5	2000*4000

3.4.6 蒸汽去皮机 3.4.6 Steam Peeler



产品简介

主要用于马铃薯、甘薯、胡萝卜等块茎物料的去皮前表面爆裂处理作业，特别适合外形凸凹不平且不规则的块茎类物料去皮。具有去皮率高、损失率低、去皮后的物料表面光滑、适用于规模化生产等特点。

Product Introduction

This machine is mainly used to instant burst the surface of potatoes, sweet potatoes, carrots and other pre-peeled tuber, especially for uneven and irregular shape material peeled. With high peeling rate, low loss rate, smooth surface, and this machine is suitable for large-scale production, etc.

主要技术参数 Specification

生产率 Capacity	3000-5000kg/h	装机容量 Power	5.5kW
去皮损失率 Peeling lose	≤10%	外形尺寸 Size	3800*1850*4600mm
耗汽量 (1.0-1.6MPa) Steam consumption	0.3-0.5t/h	适用物料 Appliance	块茎类 Tuber

3.4.7 水力切条机

3.4.7 Hydro Cutting Machine



产品简介

该机是生产速冻薯条的关键设备，通过马铃薯泵的水力输送，使原料沿其长度方向前进，并以一定速度通过特殊组合切刀，将马铃薯沿长度方向切制成条（片）。不仅能极大的提高马铃薯切条的成条率，并且在切条过程中隔绝空气，减少薯条与空气接触，防止薯条褐变，保证产品质量。

Product Introduction

This machine is the key equipment for frozen French fries, through the hydraulic transmission; this pump can make material move by its length direction and through a special combination of cutter on a certain speed. After that, cut the potatoes into the length direction Article (film). This principle can greatly improve the rate of making strip and avoid potato to change into black with less contact with air.

主要技术参数 Specification

生产率 Capacity	2-5t/h	装机容量 Power	30kW
成条率 Strips rate	70%	外形尺寸 Size	8145*1300*4976mm
切条截面规格 Cutting Size	7*7(mm);7.5*7.5(mm);10*10(mm)	适用物料 Appliance	块茎类 Tuber

3.4.8 刨丝机（锉磨机） 3.4.8 Ultra Rasp



产品简介

刨丝机（锉磨机）是马铃薯、甘薯、木薯等淀粉加工生产的主要设备之一，对淀粉的产量及质量影响很大。该机采用特殊设计的进口轴承，线速度可达 95m/s 以上，淀粉游离率高，刀具更换快捷，整机运转平稳可靠。

Product Introduction

The rasp machine is one of the key equipments of processing starch of potato, sweet potato, cassava, which has an important effect on the quality of starch. This machine adopts import bearing with special design which line speed reach more than 95m/s and high potato ionization rate. The production operation is stable.

主要技术参数 Specification

生产率 Capacity	10-30t/h	转鼓材质 Material	不锈钢 Stainlesssteel
转鼓直径 Roller Diameter	800mm	装机容量 Power	90-200kW
锉磨鼓工作宽度 Working Range	300-500mm	外形尺寸 Size	2000*700*900 mm
淀粉游离率 Starch Dissociation Rate	≥95%(24h)		

3.4.9 马铃薯泵（水力输送系统） 3.4.9 Potato Transport Pump



产品简介

该泵为单级单吸蜗壳式双流道泵，结构上采用了独特的无堵塞理论，双流道布置，流道截面圆柱形设计，给物料留有充分的空间，使泵具有良好无堵塞性，可以满足输送较大固体颗粒的要求，对一定尺寸的物料基本无损伤或损伤很小非常适应于马铃薯深加工业、果品加工业对原料的无损伤输送和提升。

Product Introduction

The potato delivery pump is horizontal-type, and single stage single suction volute type with double flow channels, which adopts uniquely no stopping up structure design theoretically. And it is arranged double flow channels, which have a cylinder section design. There is sufficient room left for materials, so the pump has a good character of no stopping up, which can meet the need of delivering big solid granular. And it has little or even no damage to the certain size materials, which is suitable for feeding and washing materials without damaged in potato deep processing and fruit processing industry.

主要技术参数 Specification

输送能力 Delivery value	5 - 60t/h
装机容量 Power	20 - 45kw
扬程 Lift	> - 15m
输送物料直径 Stock Diameter	≤150mm

3.4.10 切片机

3.4.10 Slicer



产品简介

该机适用于块茎类果蔬的切片。具有切片厚度均匀、可调、表面光滑、规整、质量稳定等特点。同时结构设计合理，便于清洗和检修。

Product Introduction

This machine can be applicable to slicing all kinds of tuber crops and fruits and vegetables. The feature is thin slice, adjustable slice, suitable for large volume of materials, slice the surface quality stability and so on. While structural design is reasonable, more facilitate cleaning and maintenance work.

主要技术参数 Specification

生产率 Capacity	1-1.5t/h	装机容量 Power	1.5kW
切片厚度 Slice Thickness	0.8-1.8mm	外形尺寸 Size	1080*720*720mm

3.5 油脂加工设备

3.5 Oil processing equipment

3.5.1 YLZ/YWZ/NYWZ 系列立式、卧式振动排渣过滤机

3.5.1 YLZ/YWZ/NYWZ series vertical horizontal leaf filter



产品简介

系列立式、卧式振动排渣过滤机是一种密闭操作的高效节能型精密澄清过滤设备，广泛适用于化工、石油、生物柴油、油脂、食品以及制药等行业的流体精密过滤或各类液体的脱色过滤。

技术特点：

- ◆ 全密闭操作，无物料损耗，可多台并联交替使用实现连续生产；
- ◆ 机械振动排渣、劳动强度低，清洁卫生，劳动环境好；
- ◆ 设备操作、维护、清理方便。

适用范围：

油脂行业：机榨毛油、脱色油、氢化油、冬化油等的过滤；

食品行业：砂糖、葡萄糖等糖液的活性炭脱色过滤，啤酒、酱油、果汁、麦芽汁、酒、清凉饮料等的澄清过滤；

石化行业：石化、无机、有机等化工行业过程中的结晶体分离，各种催化剂的过滤分离；采用活性炭的脱色过滤。

Product Introduction

Usage

- Oils and fats industry: filtering crude pressed oil, bleached oil, hydrogenated oil, wintered oil, etc;
- Food industry: filtering sugar solutions such as granulated sugar, grape sugar, etc. to separate out bleached agent of active carbon, filter beer, fruit juice, wort, alcohol, beverage for clarification;
- Chemical industry: for separating out all kinds of crystals, catalysts, bleaching agents of active carbons in petroleum chemical industry, inorganic chemical industry and organic chemical industry.

Features

- Compact structure, small occupying area;
- High fineness filtrate, low consumption and losses, high economic efficiency;
- Discharging residue automatically, low labor intensity, clean and good operation environment, little pollution;
- High efficiency since hermetic and continuous production can be realized by connecting two filters in parallel and operating them alternately.

主要技术参数
Specification

YLZ 系列型号 Type	过滤面积 Net filtering area (m ²)	容积 Volume of filter tank (m ³)	设计压力 Designed pressure (MPa)	最高工作压力 Max work pressure (MPa)	设计温度 Designed temperature (°C)	净重 Net weight (kg)
4.5	4.5	0.45	0.6	0.45	150	566
8	8	0.85				943
12	12	1				1050
20	20	1.62				1256
30	30	2.6				1821
36	36	3				1960
50	50	4.5				2753
60	60	5				2973
70	70	5.3				3695
80	80	6				4182
90	90	6.5				4339
100	100	7.1				4618
110	110	7.8				5200
120	120	8.4				5600

出口业绩

出口至丹麦、印度、印度尼西亚、马来西亚等地。

Export Performance

Denmark, India, Indonesia, Malaysia etc.

3.5.2 NLG 系列逆流冷却干燥器 3.5.2 NLG series counterflow cooler and dryer



产品简介

主要对油脂加工中膨化料的干燥和冷却，也适用于于饲料行业对物料的干燥。

技术特点：

- ① 采用闭风器进料，杜绝进料口窜风现象，确保冷却效果；
- ② 热气流逆向通过物料，提高干燥 / 冷却效果
- ③ 加大冷却容积，延长物料冷却时间，明显提高冷却效果；
- ④ 摆动式翻板卸料装置，翻板角度和卸料速度可调且均匀流畅；
- ⑤ 控制系统关键电器元件采用 ABB 和 Schneider 产品。

Product Introduction

Usage

- Specially designed to provide cooling and drying for raw materials such as rape seed, corn, soybean, rice bran and corn germ, and other materials such as flaked materials, expanded materials and meals.

Features

- Compact structure, less occupying area, attractive appearance;
- Good cool effect since the hot air and materials flow countercurrently;
- The swivel discharging device works smoothly and uniformly and discharging speed is adjustable;
- Low labor intensity since feeding and discharging materials are totally auto controlling;
- Flexible for drying different kinds of materials;
- All kinds of types from low capacity to high capacity are available.
- The key electric elements of automatic control systems were chose ABB or Schneider

主要技术参数
Specification

NLG 型号 Type	1010	1515	2020	2025	2525	3030	3035	3535	3540	4040	4050
干燥床面积 Drying bed area (m ²)	1	2.25	4	5	6.25	9	10.5	12.25	14	16	20
热风温度 Hot air temperature (°C)	60-90										
形尺寸(长×宽×高) Dimension	1520×1290 ×3290	2145×1845 ×4900	2670×2345 ×5710	3145×2345 ×5960	3145×2870 ×6100	3625×3495 ×6180	4125×3495 ×6230	4125×3770 ×6230	4625×4004 ×6420	4625×4395 ×6920	5500×4380 ×7220
去除水分 Remove the moisture	2%~4%										
重量 Net weight (kg)	800	1750	2700	3000	3200	5050	5700	6050	12500	14000	16500
干燥大豆膨化料 Soybean	140	320	550	700	900	1300	1500	1800	2000	2500	3000
干燥菜籽膨化料 Rapeseed	60	150	260	325	400	580	680	800	1200	1500	2000
干燥米糠膨化料 Rapeseed	25	60	100	130	160	230	270	300	400	500	600
冷却菜籽预榨饼 Rapeseed cake	60	150	260	325	400	580	680	800	1200	1500	2000

出口业绩

出口至俄罗斯等地。

Export Performance

Russia etc.

3.5.3 YJP 系列油料挤压膨化机 3.5.3 YJP series oilseeds expander



产品简介

YJP 系列挤压膨化机主要用于各种油料浸出前的预处理和各种预榨饼浸出前的处理，可提高产量 30%~50%，并且能改善产品质量，降低粕中残油，减少能耗。

技术原理：

油料胚片被送入挤压膨化机中，在螺旋的推动下，被强烈地挤压、搅拌、剪切。随着机腔内部压力的逐渐加大，温度不断升高，在高温、高压、高剪切力的机械作用下，油料细胞充分被破坏同时物料中的酶也被钝化，从膨化机的出口排出时，高温、高压的物料瞬间从高压转变成大气压，造成水分迅速地从物料组织结构中释放出来，物料随之膨化成型，从而获得疏松而强度又高的挤压膨化物料。

◆ 应用广泛

采用不同螺旋组合，可适合于不同特性的油料，已广泛应用于大豆、米糠、油菜籽、棉籽、玉米胚芽等各种油料挤压膨化加工。

◆ 两种出料方式

出料采用组合式衬套镶嵌模板结构和液压锥环模两种

Product Introduction

Usage

- For pre-treatment of all kinds of oilseeds and pre-pressed cakes prior to extraction process.

Features

- Increase the capacity of extraction process line by 30-50%, benefit product quality, reduce the oil content of meal and lower the energy consumption;
- Material feeding speed can be adjusted by frequency conversion;
- The expander can be equipped with fixed discharging template or hydraulic discharging device.

形式，模孔衬套和环模均由高耐磨材料制成，生产中可根据需要选择出料方式。

- ◆ 独特的蒸汽喷射系统
- ◆ 耐磨性好

整机关键部件经过特殊工艺处理，设备耐磨性好，使用寿命长。

- ◆ 型号齐全

目前已形成不同产量、不同用途的 10 多个系列产品，从供大专院校实验室使用的 YJP06 型小型挤压膨化机到单产为 2000~3000t/d 的 YJP40 国内日处理量最大的挤压膨化机。

主要技术参数

Specification

型 号 Model	YJP13	YJP16	YJP20	YJP25	YJP30	YJP35	YJP40
螺旋直径 Spiral Diameter (mm)	130	160	200	250	300	350	400
配用动力 Power (Kw)	22~30	37~55	55~90	90~110	132~160	220~250	355~400
蒸汽耗量 Steam Consumption (kg/t 原料 feedstock)	20~28						
蒸汽压力 Steam Pressure (MPa)	0.6~0.8						

4 可再生及新能源设备

4 Renewable Energy Equipment

4.1 制冷设备

4.1 Refrigeration Equipment

4.1.1 流态冰冷水机组

4.1.1 Slurry ice chiller



产品简介

流态冰冷水机组是集冷水机组与蓄冰机组于一体的新一代制冷蓄能机组。机组制取流态冰，可用泵输送。流态冰作为新型冷却介质，具有蓄冷密度大、流动性好、传热性能强以及融冰降温速度快等优点。能满足空调制冷蓄冷，工艺冷却，海水淡化，矿井降温，蔬菜、海鲜等食品保鲜冷藏，饮料与乳制品加工，制药与化工等行业需求。

配备 SI/C 系列产品的蓄冰空调系统与常规空调系统相比，具有大幅度降低装机容量显著特点，并且系统型式相似、能效水平相近、初始投资相当，是空调技术领域的革命性进步。

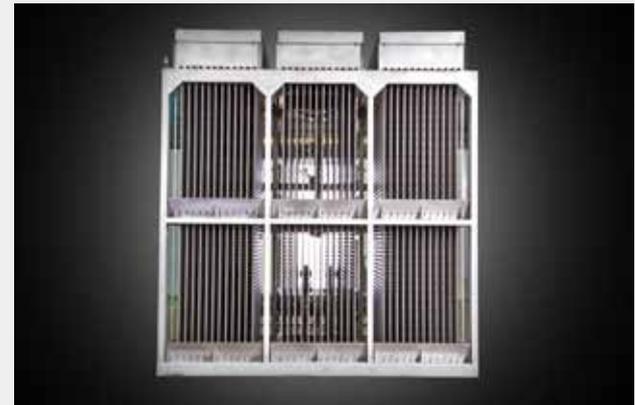
Product Introduction

Slurry ice chiller, combining chiller with ice storage unit, is a brand new kind of energy-storage cooling system which efficiently produce pumpable slurry ice. Slurry ice with its high density, fluidity and thermal conductivity has become a new type of cooling media. SI/C Units are used in different industries like A/C and energy storage, process cooling, desalination, mining cooling, food refrigeration of vegetables, seafood etc. beverage and dairy processing and pharmaceutical and chemical industry.

Compared to conventional A/C system, SI/C series ice storage A/C system requires lower capacity as with similar system type, initial investment and EER. It is one revolutionary progress in A/C technology.

4.1.2 板式冰蓄冷

4.1.2 Ice thermal storage



产品简介

冰蓄冷是一种蓄能技术，它在夜间利用电价低谷时段制冰蓄冷，在白天电价高峰或冷负荷较大时段融冰供冷。冰蓄冷技术不仅可以有效平衡电网峰谷负荷，而且降低制冷设备装机容量，减少电力设施投资，大幅度降低空调系统运行费用，为用户带来长远经济效益。因此，近年来，冰蓄冷空调系统已得到快速发展。

宏观优点

- 1、转移高峰用电量，平衡电网峰谷差。
- 2、减少新建电厂投资。
- 3、减少环境污染，利于生态平衡。
- 4、充分利用不可再生资源。
- 5、设备满负荷运行效率高。
- 6、减少 25%~50% 的主机装机容量。
- 7、减少冷却塔的装机容量和功率。
- 8、充分利用分时电价，节省运行费用。
- 9、可作为应急冷源，停电时可利用自备电力融冰供冷。
- 10、减少空调系统的一次性投资。
- 11、符合“绿色”建筑空调系统标准。

Product Introduction

Ice thermal storage is a kind of energy saving technology. The ice thermal storage air conditioning system activates ice making unit to store the thermal energy in the ice storage tank when the electricity demand is low. When it is high, the storage thermal energy is drawn from the thermal storage tank for cooling. In which case, the cooling unit can be partially or completely shut down when power use peaks comes in order to help to balance the power grid load and reduce the operation cost.

Advantages of ice thermal storage technology

1. Transfer electric load during the power use peaks and balance the power grid load.
2. Reduce investment to new power plant.
3. Reduce environment pollution.
4. Actively utilize non-renewable resources.
5. The efficiency is high due the full load operating of the units.
6. The installation capacity of main units can be reduced by 25% to 50%.
7. The installation capacity and power of cooling tower can be reduced.
8. Utilize night time electricity to save operation cost.
9. Can be used as backup cooling source, with integrated power supply to melt the ice and providing cooling when there's a power failure.
10. Less initial investment in air conditioning system.
11. Accord with the criteria of "Green Building Air Conditioning System".

4.1.3 片冰机

4.1.3 Commercial flake ice machine



产品简介

商业片冰机是专为用水量较小的客户量身定做的小型系列产品，占地面积小，现场维护简单，移动方便。制冰机部件采用 SUS304 不锈钢、铝合金和 PE 材料制造，卫生水平达到了国际 HACCP 和 FDA 认证标准。制冰机出冰干燥、纯净、无粉末、不容易产生结块，可连续数万小时高效无故障运行。

应用范围：

业片冰机适用于商超卖场的冰鲜展厅，蔬菜、食品保鲜、水产品加工及屠宰急速降温等领域。

备注：

(1) 标准电压为 380V-3P-50Hz，220V-50Hz，可根据客户实际要求生产电制为 3 相 60HZ，200/220V、400V、440V 的非标型制冰机。

(2) 标准工况为环境温度 25℃，供水温度 16℃，蒸发温度 -20℃。

(3) 适用工况环境温度 5-40℃，供水温度 0-40℃。

(4) 该系列产品适用于淡水，0.5t-1t 制冷剂为 R404A，1.5t-3t 制冷剂为 R22，若选用 R404A 需要提前告知。

(5) 外型尺寸包括储冰柜。

(6) 片冰机厚度为 1.5-2.0mm。

(7) 输入功率是在标准电压，标准工况下的参考值。

(8) 由于技术革新，产品的有关参数如有变更，恕不另行通知。

出口业绩

片冰机已远销亚洲，非洲，东南亚，中东，东欧，南美等地。

印度，毛里塔尼亚，索马里，刚果，安哥拉，菲律宾，印度尼西亚，智利，墨西哥，爱沙利亚，阿联酋等国均有长期客户。



Product Introduction

Commercial flake ice machine is small-sized products specially designed for clients who need less amount of ice. It has the advantages of small space requirement, easy maintenance and convenient relocation. The components of the machine are made of stainless steel SUS304, aluminum alloy, and PE that are in good conformance with the international standard HACCP and FDA. The ice from this machine is very dry, pure, powderless, and does not block. This machine can work constantly and efficiently for more than 10,000 hours without any faults.

Scope of application:

The commercial flake ice maker is particularly suitable for refreshing vegetables and foodstuff in supermarket and quick cooling for processing fishery products and butchery.

Notes:

1) Standard voltage: 380V-3P-50Hz that can be changed to 60Hz, 200/220V, 400V, 440V as required.

2) Standard ambient temperature: 25℃, water supply temperature: 16℃, evaporating temperature: -20℃

3) Applicable ambient temperature: 5-40℃, water supply temperature: 0-40℃.

4) This series products are applicable to fresh water. Refrigerant: R404A (for 0.5t-1t ice machine); Refrigerant: R22 (for 1.5t-3t ice machine). If you choose R404A, please advise in advance.

5) The outer size includes ice storage bin size.

6) Thickness of ice: 1.5mm-2.0mm.

7) The input power is given at standard voltage and working conditions and therefore is only for reference.

8) With the development of technology, the data are subject to change without notice.

Export Performance

They have been exported to Asia, Africa, Southeast Asia, the Middle East, Eastern Europe, South America and other places.

India, Mauritania, Somalia, Congo, Angola, the Philippines, Indonesia, Chile, Mexico, Estonia, the United Arab Emirates and other countries have long-term customers.

4.1.4 冷风机 4.1.4 Air cooler



产品简介

1. 公司生产的冷风机蒸发器引进欧洲先进技术，在充分考虑产品的性能和质量同时，兼顾提高性价比指数，是为满足国内市场特点而量身定做的具有综合优势的先进产品。

2. 壳体采用镀锌板并表面喷塑工艺，有强烈的耐腐蚀性，外观美观大方。

3. 选用专业的低温风机，结合换热器自身低风阻、热高效的优点，产品具有耗电小、风量大、噪音低、射程远、制冷效率高等特点。

4. 融霜电热管选型适当、布局合理，避免融霜不均，出现局部过热、干烧等影响产品使用寿命的现象存在。

5. 结构简单、可靠，便于安装、维护。

Product Introduction

1. The evaporator of air cooler has adopted the European advanced technology, not only considering the product performance and quality, but also improving the cost performance. It is special designed to meet the domestic market characters and embraces comprehensive advantages.

2. The evaporator adopts galvanized sheet and surface coating process, with strong corrosion resistance and beautiful appearance.

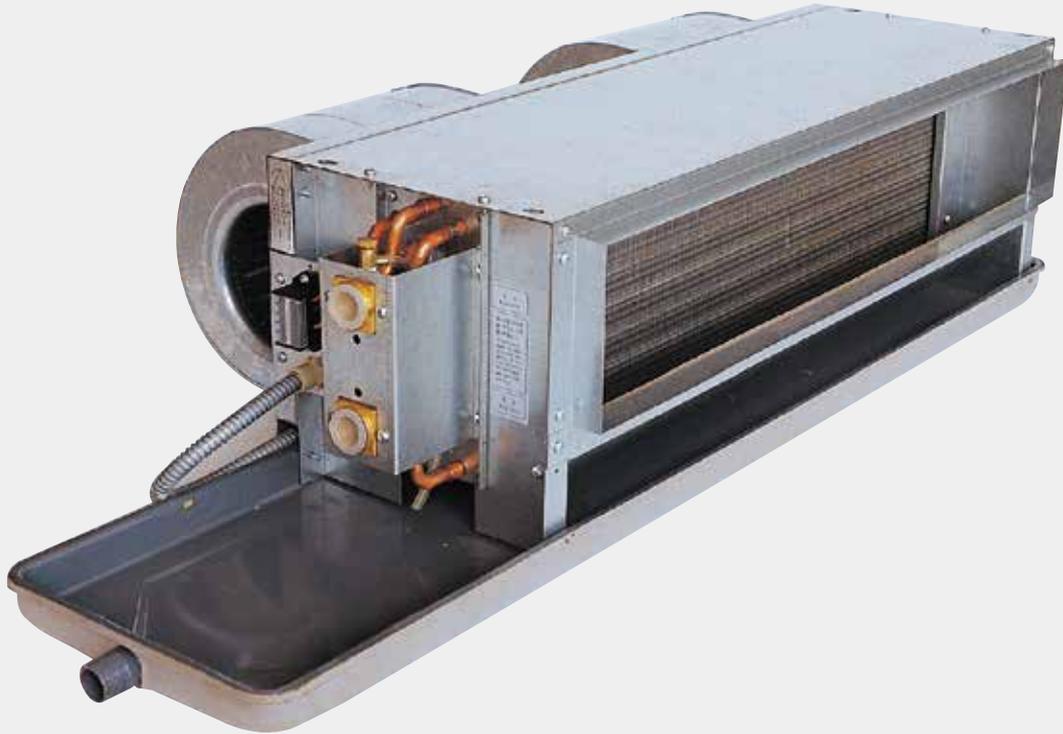
3. Choose professional low temperature fan, combined with the low wind resistance and high efficient heat exchanger. The product is characterized by low power consumption, large air volume, low noise, long distance air blowing, high efficient refrigeration, etc.

4. Suitable defrost heater and reasonable layout to avoid uneven defrost, local overheating and dry problem which affect the product life span.

5. Simple structure, reliable, easy to install and maintain.

4.1.5 风机盘管

4.1.5 Fan coil



产品简介

风机盘管机组为空调系统末端设备，主要由离心风机、换热盘管组成，用水作为制冷或加热介质。它广泛适用于商店、办公室、宾馆、住宅、工厂、银行、医院等多房间工业或民用中央空调场合，以满足降温、去湿、采暖等要求。本系列风机盘管具有式样美观、节能、噪音低、效率高、结构简单、维护方便、适应性强等。

Product Introduction

Fan coil units is the terminal equipment of the air conditioning system, mainly consist of centrifugal fan, heat exchanger coil, water as the cooling or heating medium. It is widely used in shops, offices, hotel, homes, factories, banks, hospitals and several industry or civil central air conditioning situation in order to meet cooling, dehumidification, heating and other requirements. This series of fan coil is with styling, energy saving, low noise, high efficiency, simple structure, easy maintenance, strong adaptability.

4.1.6 射流机组

4.1.6 Jet air-conditioning Units



产品简介

无风管直接送风，节省空间，降低层高；一次投资大幅度减少，运行费用明显下降；远距离送风，冷热风送到指定位置；模拟自然风，创造出舒适空调环境。

特点：

1. 采用射流性能优越的球型风口作为送风口，可以使冷、热风送到足够远的距离。
2. 球型风口的出风方向可以选用水平送风，也可以选用垂直向下送风。特别适合高大空间，尤其是大面积车间的暖风下送。
3. 水平送风时，送风角度可以在 60° 范围内手动或使用控制器上下调节，使冷、热风能够送达所需位置。
4. 为防止空调机组漏水，采取了冷凝水盘与机组底板面积相同的设计。
5. 机组框架为铝合金框架，面板采用了双层彩钢板发泡工艺，工艺先进，维修方便。
6. 低噪声运行。

Product Introduction

Direct air blowing without air ducts , save space and reduce storey height; Initial investment is substantially reduced and operating costs will be obviously decreased ; Distant air blowing, hot and cold air will be delivered to a designated location ; Simulate natural wind , creating a comfortable airconditioned environment .

Features:

- 1 . Using ball type outlet with superior jet performance as outlet , you can blast far distance.
- 2 . Ball outlet can choose the wind direction of horizontal or vertical direction. Particularly suitable for large and high space.
- 3 . When blowing vertically, the angle can be manually or controller adjusted in the range of 60 ° up and down.
4. In order to prevent water leakage of air conditioning units, adopt the design of same area of floor plates and drain pan area.
5. Framework is aluminum frame, the panels are steel panels with a double foam technology and easy to maintain.
6. Low-noise operation.

4.1.7 速冻机 4.1.7 Freezers



流态速冻机
Fluidized Tunnel Freezer



螺旋速冻机
Spiral Freezer

产品简介

1. 速冻机拥有国家专利气流控制系统。
2. 符合卫生设计：
 - 1) 预先制作的地台模块全部采用不锈钢厚板焊接制造，带有大斜度的地台，非常容易
 - 2) 清洗和将水排出库体。
 - 3) 高效的离心风机或轴流风机安装在独立风舱内，使市风虹均匀、更节能且更容易检修风机马达。
3. 节能
 - 1) 蒸发器除霜所用时间约需 20min，与国内同样蒸发器比较，大约少一半除霜时间。
 - 2) 在除霜时减少了制冷机开机时间。
 - 3) 专业化的设计，使速冻机得到最合理的风量和风压时，消耗最小的风机功率。
 - 4) 蒸发器采用小温差设计，能轻易的冻结出优质产品，比采用大温差设计的速冻机更加节能。
4. 性能好、可靠性高和维护简单
5. 不锈钢或塑钢材质的螺旋式输送带按美国网带标准生产。
6. 每套速冻机在发货前都在工厂组装并运行调试，到现场后安装非常容易和快速。
7. 开放式安装的驱动马达非常容易检查、维修和保养。
8. 可根据客户特殊要求，非标设计和制造。
9. 全部采用不锈钢材质的结构和食品等级的 UHMW 润滑部件。

Product Introduction

1. The air control system of the freezer has national patent.
2. The design is in accordance with the hygienic standards.
 - 1) The premade platform is made of thick stainless steel, with high inclination platform, easy to clean and discharge the water out of the cold room.
 - 2) High efficient centrifugal blower and axial flow fan are installed in the separate ventilation cabin, which is with more energy efficiency and more easy to examine and repair the fan motor.
3. Energy Saving
 - 1) The evaporator defrosting needs about 20min which is about the half time of the other evaporator.
 - 2) Reduce the refrigeration start-up time when defrosting.
 - 3) Professional design to make the freezer get most reasonable airflow rate and pressure, and consume the lowest power.
 - 4) The evaporator adopts the small temperature difference design, which can freeze out best quality products. This can save more energy than the big temperature difference design.
 - 5) With Good performance and high reliability. Easy to maintain.
 - 6) Test and operate well before delivery. Easy to install at site.
 - 7) Open-type motor is easy to check, repair and maintain.
 - 8) Able to design and manufacture according to the customer requirements.
 - 9) All adopt the stainless steel structure and food grade UHMW lubricating parts.

4.1.8 并联机组

4.1.8 Parallel Compressors Unit



产品简介

并联制冷压缩机组可分级进行能量控制，可以获得多级输出功率组合，由此可实现根据冷库速冻间入货量多少及温度高低变化的最佳能量调节，不但可以提高冷冻产品的品质，而且还提高了制冷压缩机最大的制冷效率，最大限度的降低了电耗，节约了运行成本。采用国际知名品牌比泽尔压缩机，设置高低压、油压差、过载、缺相、过热等各种完备的安全保护系统，具有可靠性高、运行安全、运行经济节能几大显著优点。

相关产品有：

1. 螺杆式并联机组
2. 博客活塞式并联机组
3. 汉钟螺杆式并联机组
4. 艾默生 stream 并联机组
5. 复盛双级机并联机组
6. 风冷式冷凝机组
7. 水冷式冷凝机组

Product Introduction

Parallel compressor units can control energy with different stage and get multi-level output power, which can best adjust the energy according to the input commodity quantity and temperature in the cold room. This can not only improve the quality of the frozen products but also improve the highest compressor refrigeration efficiency, reduce the power and cost at the most. We adopt BITZER compressor, set security protection system such as high/ low pressure, oil pressure, over load, default phase and overheat, with high reliability, safe operation and energy saving.

1. Screw Parallel Compressors Units
2. Bock Piston Compressor Units
3. Hanbell Screw Compressor Units
4. Emerson Stream compressor Units
5. Fusheng Two-Grade compressor Units
6. Air cooling condensing units
7. Water cooling condensing units

4.1.9 压缩机

4.1.9 Compressor



产品简介

压缩机：采用国际最先进的转子型线，高质量原装进口滚动轴承，约翰·克兰原装进口机械密封。压缩机可实现 10~100% 无级能量自动可调，内容积比自动调节。

高效圆弧包络线型线

- ◆ 原装进口重载滚动轴承及机械密封
- ◆ 能量及内容积比自动调节
- ◆ 无油泵
- ◆ 自动油恒温控制
- ◆ 高效油分离器，四级分离，分离精度 3ppm
- ◆ 高精度油精过滤器
- ◆ 热虹吸油冷或水油冷
- ◆ 高效电机
- ◆ R717、R22、R134a、R290、R1270 等多种工质
- ◆ R717 标准工况制冷量 12~130 万 kcal/h

Product Introduction

Compressor: Using the most advanced rotor shaped wires, high-quality imported bearings, imported John Crane mechanical seals. Compressor can achieve 10 to 100% stepless energy adjusted automatically and volume ratio adjusted automatically.

- Efficient arc envelope shaped wires
- Imported heavy duty rolling bearing and mechanical seal
- Energy and volume ratio adjusted automatically
- Without oil pump
- Automatic oil temperature control
- Efficient oil separator, four separation, separation accuracy 3ppm
- Precision Oil Filter
- Thermal siphon oil cooled or water cooled oil
- Efficient motors
- R717, R22, R134a, R290, R1270 and other refrigerants
- R717 standard conditions cooling capacity from 12 to 1,300,000 kcal / h

4.2 新能源设备 4.2 New Energy

4.2.1 小型风力发电机组 4.2.1 Small Wind Turbine



序号 No.	项目/参数 Item/ Parameter	单位 Unit	内容/数值 Content/ Value	内容/数值 Content/ Value	内容/数值 Content/ Value	内容/数值 Content/ Value	内容/数值 Content/ Value
	制造商 Manufacturer		内蒙古华德新技术公司 Inner Mongolia Huade New Technology Company				
	产品型号 Product Model		FD2.3-0.3	FD2.8-0.5	FD3.1-1	FD3.5-2	FD6-5
1	机组数据 Wind Turbine Parameter						
1.1	额定功率 Rated Power	kW	0.3	0.5	1	2	5
1.2	风轮直径 Rotor Diameter	m	2.3	2.8	3.1	3.5	6
1.3	额定风速 Rated Wind Speed	m/s	8	9	9	9	10
1.4	切入风速 Cut-in Speed	m/s	3.5	3.5	3.5	3.5	3.8
1.5	切出风速 Cut-out Speed	m/s	18	18	18	18	20
1.7	工作环境温度 Operating Ambient Temperature	°C	-40~+40	-40~+40	-40~+40	-40~+40	-40~+40
1.8	设计寿命 Design Life	年 Year	15	15	15	15	15
1.9	制动方式 Brake Mode		电磁制动 electromagnetic brake	电磁制动 electromagnetic brake	电磁制动 electromagnetic brake	电磁制动 electromagnetic brake	电磁制动 electromagnetic brake
1.10	调速方式 Regulating Speed Mode		尾翼斜置式 tail oblique style	尾翼斜置式 tail oblique style	尾翼斜置式 tail oblique style	尾翼斜置式 tail oblique style	变桨距 adjusting the pitch of blade
1.11	质保期 Quality Guarantee Period	年 Year	1	1	1	1	1

4.2.2 全自动保护逆变器

4.2.2 Automatic Protection Inverter



序号 No.	项目/参数 Item/ Parameter	单位 Unit	内容/数值 Content/ Value	内容/数值 Content/ Value	内容/数值 Content/ Value	内容/数值 Content/ Value	内容/数值 Content/ Value
	制造商 Manufacturer		内蒙古华德新技术公司 Inner Mongolia Huade New Technology Company				
	产品型号 Product Model		NB300S24	NB600S48	NB1000S48	NB2000S48	NB5000S48
2	设备数据 Product Parameter						
2.1	额定功率 Rated Power	kVA	0.3	0.6	1	2	5
2.2	额定电压 Rated Voltage	V	DC 24	DC 48	DC 48	DC48	DC 48/110/220
2.3	额定电流 Rated Current	I	12.5	25	21	42	83/36/18
2.4	波形 Waveform		正弦波 Sine Wave	正弦波 Sine Wave	正弦波 Sine Wave	正弦波 Sine Wave	正弦波 Sine Wave
2.5	输出电压 Output Voltage	V	220V				
2.6	输出频率 Output Frequency	HZ	50HZ				
2.7	质保期 Quality Guarantee Period	年 Year	1	1	1	1	1

4.2.3 户用型风 / 光互补供电系统 4.2.3 Household-type Wind-PV Hybrid Power system



序号 No.	项目/参数 Item/Parameter	单位 Unit	内容/数值 Content/Value	内容/数值 Content/Value	内容/数值 Content/Value	内容/数值 Content/Value	内容/数值 Content/Value
	产品型号 Product Model		400W/24V	500W/24V	450W/36V	700W/48V	1.3kW/48V
2	设备 Equipment						
2.1	风力发电机 Wind Turbine	kW	0.3	0.3	0.3	0.5	1
2.2	太阳能光伏组件 PV	WP	100	200	150	200	300
2.3	逆变器 Inverter	kVA	600	600	600	1000	2000
2.4	蓄电池组 Battery	Ah	2×200Ah	4×150Ah	3×135Ah	4×200Ah	4×200Ah
2.5	输出电压 Output Voltage		220V ± 5%				
2.6	输出频率 Output Frequency		50HZ ± 1%				

4.2.4 中型风 / 光互补供电系统

4.2.4 Off-grid centralized Wind-PV Hybrid Power system



序号 No.	项目/参数 Item/Parameter	单位 Unit	内容/数值 Content/Value	内容/数值 Content/Value	内容/数值 Content/Value
	产品型号 Product Model		5~10kW/48V	10~20kW/110V	20kW~100kW/220V
2	设备 Equipment				
2.1	风力发电机 Wind Turbine	kW	5	10	10~50
2.2	太阳能光伏组件 PV	WP	5~10kWp	10~20kWp	20~100kWp
2.3	逆变器 Inverter	kVA	5	10	10~100
2.4	蓄电池组 Battery	Ah	24/48×800Ah	55/110×1000Ah	220/440×1200Ah
	输出电压 Output Voltage		220V ± 5%	220V ± 5%	220V ± 5%/380 ± 5%
	输出频率 Output Frequency		50HZ ± 1%		

4.2.5 5TGK-96 型太阳能牧草干燥成套设备 4.2.5 5TGK-96 Solar energy foragedrying equipment



产品简介

太阳能饲草干燥技术是一种生产成本低、节能、无污染的饲草干燥新工艺，有效地解决了饲草收获过程中花和叶损失的难题，更好地保存饲草中营养成分。

5TGK-96 型太阳能牧草干燥成套设备主要由太阳能空气集热器、送风系统、草捆干燥箱和控制系统组成。

Product Introduction

Solar energy pasture-drying technology is new technology notable for reducing cost, saving energy, and causing no pollution. In addition, the technology provides a solution to the problem of leaf-and-flower loss in harvesting, thus more effectively retaining the nutrient ingredients in pasture.

5TGK-96 solar energy pasture-drying equipment mainly consists of the thermal collector, air-delivering system, bale-drying box, and control system.

太阳能干燥苜蓿设备技术性能指标：

草库有效容积（空气集热器下面）	540m ³
空气集热器面积	250m ²
苜蓿打捆时含水率	30-40%
每批次生产能力	96 捆 (1.8-2t)
每批次干燥时间	白天 3-4h（晴朗天气）；夜晚 5-6h；（草捆干燥前含水率 30%~40%；干燥后含水率 ≤20%）
配套动力	≤25kW

Technical performance indicators of solar energy alfalfa-drying equipment:

Effective capacity of pasture storage (below the air-type thermal collector using air as heat-transport fluid)	540m ³
Area of thermal collector	250m ²
Water content of alfalfa being baled	30-40%
Drying capacity per batch	96 bales (1.8~2t)
Drying duration per batch	3~4 h in the daytime (sunny days) and 5~6 h at night (water content of bales is 30%~40% before drying and ≤20% after drying)
Driving power	≤25kW

5 军工及特种装备

5 Military and Special Equipment

5.1 飞机牵引车

5.1 Aircraft Tractor

5.1.1 QW/QD 系列无杆飞机牵引车

5.1.1 QW/QD Aircraft Towbarless Tractor



产品简介

无杆飞机牵引车采用了当今国际先进的无杆牵引技术，取消了牵引杆，只需一名工作人员即可完成牵引、顶推飞机的工作，节省了人力和物力，节约了时间；同时缩短了整个机组的长度，使牵引的机动灵活性大大增加，在狭小的场地其优越性尤其突出。

采用静液压传动，相对于传统的机械传动和液力传动，起步柔和，低速微动性好，增加了对接安全性；具有无极变速功能，无功率流中断，无换挡冲击，增加了牵引车的寿命。

我公司无杆牵引车，可满足 120 吨以下的多种机型，有步行和乘行两种操作方式。主要元件均采用国际或国内知名品牌产品。电动牵引车可在有安全要求的场地使用，根据需要可选用防爆型产品。

出口业绩

QFY80	2 辆	出口地：澳大利亚
QFY30	1 辆	出口地：加纳
QW15	6 辆	出口地：巴基斯坦
QY15	2 辆	出口地：玻利维亚

Product Introduction

The Aircraft Towbarless Tractor uses the international advanced traction without a rod, and canceled the tow bar, just a staff member to complete the traction, the top to push the aircraft work, saving manpower and material resources, and saves time; while reducing the length of the entire unit, so that the traction motor flexibility greatly increased, and its advantages, especially in small venues.

Hydrostatic transmission, as opposed to the traditional mechanical transmission and hydraulic transmission, starting soft, low-speed micro docking security; with infinitely variable speed function, power flow interruption, no shift shock, an increase of tractor lifetime.

The towbarless tractor, which can meet a variety of models below the 120 tons of walking and take the two modes of operation. The main components of international or domestic famous brand products. The electric tractor can use in the site safety requirements, necessary to use explosion-proof products.

Export Performance

QFY80	2	export to: Australia
QFY30	1	export to: Ghana
QW15	6	export to: Pakistan
QY15	2	export to: Bolivia

QW 无杆系列飞机牵引车主要参数：

动力型式	QWB25	QW25	QW80	QW15	QD15
最大牵引力 (kN)	25	25	80	15	15
许用牵引质量 (T)	40	40	120	20	20
最高行驶速度(km/h)	15	35	30	3.6	3.6
最低稳定速度(km/h)	✂	✂	✂	✂	✂
整车尺寸 (长×宽×高)(mm)	4600×2000×1350	5990×2400×(1300~1550)	7000×2700×1650	2000×1600×750	2500×1900×750
轴距(mm)	2400	2730	4200	1330	1905
轮距(mm)	1204/1810	1950/1968	2100/2400	155/1366	170/1748
最小转弯直径(mm)	10000	12000	18000	3500	4500
最小离地间隙(mm)	70	110	150	70	90
最大举升力(kN)	50	55	120	20	37
举升高度(mm)	80~100	80~100	80~100	70~100	70~100
可夹持机轮直径(mm)	φ 380~φ 640	φ 380~φ 560	φ 650~φ 930	φ 380~φ 500	φ 380~φ 500
可夹持宽度(mm)	810	810	1000	480	725
整备质量(kg)	3500	5600	8000	1200	3000

主要技术参数

注：由于技术改进造成参数改变不另行通知

QW Aircraft Towbarless Tractor

	QWB25	QW25	QW80	QW15	QD15
Dynamic type	Diesel engine	Diesel engine	Diesel engine	Gasoline	Electricity Motor
Maximum traction force (kN)	25	25	80	15	15
Allowable takeoff weight (T)	40	40	120	20	20
The maximum speed (km / h)	15	35	30	3.6	3.6
Minimum stable speed (km / h)	✎1	✎1	✎1	✎1	✎1
Vehicle Dimensions (L × W × H) (mm)	4600 × 2000 × 1350	5990 × 2400 × (1300 ~ 1550)	7000 × 2700 × 1650	2000 × 1600 × 750	2500 × 1900 × 750
Wheelbase (mm)	2400	2730	4200	1330	1905
Wheelbase (mm) (mm)	1204/1810	1950/1968	2100/2400	155/1366	170/1748
Minimum turning diameter (mm)	10000	12000	18000	3500	4500
Minimum ground clearance (mm)	70	110	150	70	90
Maximum lifting force (kN)	50	55	120	20	37
Lifting height (mm)	80 ~ 100	80 ~ 100	80 ~ 100	70 ~ 100	70 ~ 100
Gripping the wheel diameter (mm)	φ 380 ~ φ 640	φ 380 ~ φ 560	φ 650 ~ φ 930	φ 380 ~ φ 500	φ 380 ~ φ 500
Clamp width (mm)	810	810	1000	480	725
Mass (kg)	3500	5600	8000	1200	3000
Specification					

Note: Due to technical improvements resulting in the parameters change without notice.

5.1.2 QFY 系列有杆飞机牵引车

5.1.2 QFY Aircraft Tow Tractor



产品简介

QFY 系列飞机牵引车，采用传统的有杆牵引方式，最大可牵引 300 吨以下的飞机，采用静液压传动，相对于传统的机械传动和液力传动，起步柔和，低速微动性好，增加了对接安全性；具有无极变速功能，无功率流中断，无换挡冲击，增加了牵引车的寿命。

由于采用液压传动，各传动部件可随意布置，使布局更加合理，方便使用和维护保养。

驾驶室布局宽敞，视野开阔，配备了冷暖空调，提高驾驶员的舒适性。

QFY200 型飞机牵引车驾驶室可升降，配备底盘升降功能，便于更换轮胎，维修车辆。有前轮转向、四轮向心转向和蟹形转向功能。

具有应急转向装置和应急解脱制动装置，在牵引车出现故障时可快速将其转移。

出口业绩

QFY80	2 辆	出口地：澳大利亚
QFY30	1 辆	出口地：加纳

Product Introduction

QFY series aircraft tractor, the rod traction, maximum traction under 300 tons of aircraft, hydrostatic transmission, as opposed to the traditional mechanical transmission and hydraulic transmission, soft start, low-speed micro, an increase of docking security; with infinitely variable speed function, and no power flow interruption, no shift shock, and increase the life of the tractor.

As a result of the hydraulic transmission, the transmission parts are free to layout, to make the layout more reasonable, easy to use and maintenance.

The cab layout is spacious, wide vision, equipped with air conditioning to improve the riding comfort of the members.

QFY200 aircraft tractor cab lift equipped with a chassis lift to facilitate the replacement of tires, and maintenance of vehicles. Front wheel steering, fourwheel steering to the heart and crab-shaped steering function.

Emergency steering and emergency relief to the brakes, tractor fails to quickly transfer.

Export Performance

QFY80	2	export to: Australia
QFY30	1	export to: Ghana

QFY 系列有杆飞机牵引车主要参数

		QFY15	QFY30	QFY80	QFY200
动力型式		柴油机	柴油机	柴油机	柴油机
主要技术参数	最大牵引力 (kN)	15	30	80	200
	许用牵引质量 (T)	20	50	120	300
	最高行驶速度(km/h)	15	30	30	30
	最低稳定速度(km/h)	≤1	≤1	≤1	≤1
	整车尺寸 (长×宽×高)(mm)	3000×1600×1200	5200×2400×1650	5000×2450×1870	6300×2600×(1650~2150)
	轴距(mm)	1500	2000	2200	2800
	最小转弯直径(mm)	8000	12000	12000	前轮转向: 15000 四轮转向: 10000
	最小离地间隙(mm)	200	150	150	70
	整备质量(kg)	4000	5500	13000	1200

注：由于技术改进造成参数改变不另行通知

QFY Aircraft Tow Tractor The Main Parameters

		QFY15	QFY30	QFY80	QFY200
Dynamic type		Diesel engine	Diesel engine	Diesel engine	Diesel engine
Specification	Maximum traction force (kN)	15	30	80	200
	Allowable takeoff weight (T)	20	50	120	300
	The maximum speed (km / h)	15	30	30	30
	Minimum stable speed (km / h)	≤1	≤1	≤1	≤1
	Vehicle Dimensions (L × W × H) (mm)	3000 × 1600 × 1200	5200 × 2400 × 1650	5000 × 2450 × 1870	6300 × 2600 × (1650 ~ 2150)
	Wheelbase (mm)	1500	2000	2200	2800
	Minimum turning diameter (mm)	8000	12000	12000	前轮转向: 15000 四轮转向: 10000
	Minimum ground clearance (mm)	200	150	150	70
	Mass (kg)	4000	5500	13000	1200

Note: Due to technical improvements resulting in the parameters change without notice.

5.2 热喷涂设备

5.2 Thermal Spraying Equipment

5.2.1 DH-PTAW-500 型全自动等离子喷焊系统

5.2.1 DH-PTAW-500 Automated Plasma Spray System



产品简介

Product Introduction

<p>采用大功率 IGBT 高频逆变电源，动态响应速度快、电流脉动小、功率因数高、性能稳定； 采用 PLC 控制，实现复杂喷焊工艺过程自动化； 触摸屏控制界面，操作简便、快捷、人机交互功能强； 提供方便的扩展接口； 可增配系统数据配方库，随时将典型喷焊参数存入配方库以备调用。</p>	<p>Power IGBT high frequency inverter power, fast response, small current ripple, high power factor and stable performance; PLC control, complex spray process automation; Touch-screen control interface is simple, fast, strong function of human-computer interaction; Facilitating the expansion interface; Can be equipped with the system data recipe library to keep the typical spray parameters deposited in the recipe library to prepare for the call.</p>
<p>送粉器 送粉量调节范围 0-150 g/min 送粉精度 5% 送粉压力 <0.2 MPa 粉末粒度范围 60-200 目 喷焊枪摆动机构 焊枪摆动频率 0 ~ 100 次/分 焊枪摆动宽度 0 ~ 50 mm 运动控制 工作台转速范围 0.04 ~ 2 r/min 焊件最大直径 600mm 焊枪移动速度 0 ~ 1000 mm/min 焊枪移动最大距离 900mm 喷焊电源 非弧电流调节范围 10 ~ 250A 转弧电流调节范围 20 ~ 500A</p>	<p>Powder feeder The powder feed rate adjustment range 0-150 g / min. Powder feeding accuracy of 5% Powder feeding pressure <0.2 MPa Powder size range of 60-200 mesh Spray torch swing mechanism Torch oscillating frequency from 0 to 100 beats / min Torch swing width of 0 to 50 mm Motion Control Table speed range 0.04 to 2 r / min. Weldment maximum diameter of 600mm Torch movement speed 0 to 1000 mm / min. Torch move the maximum distance of 900mm Spray power Non-arc current adjustment range of 10 ~ 250A Transferred arc current adjustment range of 20 ~ 500A</p>

5.2.2 DZ-P50A 等离子喷焊设备

5.2.2 DZ-P50A Plasma spray equipment



产品简介

Product Introduction

<p>DZ-P50A 型等离子喷涂设备设备特点： 送粉器可输送金属粉或陶瓷粉，目数从 100 目到 600 目； 控制柜采用 PLC 调节控制，结合机械手可达到自动化操作； 喷涂功率可调范围大，可喷涂熔点低的金属涂层和高熔点的陶瓷涂层，适用范围广。维修容易； 移动方便，适宜现场大件施工。</p>	<p>Equipment characteristics: The powder feeder can deliver the metal powder or ceramic powder, the mesh from 100 mesh to 600 mesh; Control cabinet with PLC regulation and control, combined with robot automation can be achieved; Spraying power adjustable range, can be sprayed ceramic coatings of low melting point metal coating and a high melting point, for a wide range. Is easier to maintain; Easy to move suitable site large construction.</p>
<p>主要参数： 输入电压：380V 空载电压：160V 额定输出功率：80KW 输出电流：100-1000A 输出电压：30 - 100V</p>	<p>System parameters: Input voltage: 380V No-load voltage: 160V Rated output power: 80KW Output current :100-1000A Output voltage :30-100V</p>

5.2.3 DZ4000— III电火花沉积 / 堆焊设备 5.2.3 DZ4000-III EDM Deposition / Welding Equipment



产品简介

Product Introduction

<p>电源功率：4000W 整机重量：30Kg 逆变电源 具有沉积、堆焊、刷镀、弧焊功能</p>	<p>Power: 4000W Total Weight: 30Kg Power inverter Deposition, welding, plating, arc welding functions</p>
<p>航空、能源、汽车以及机械行业精密机械零件表面尺寸恢复、表面耐磨强化 热电厂发电机转子轴径、汽轮机转子轴径密封段以及轴瓦表面尺寸恢复成套技术 冷冲模、大型拉延模具、金属压印模、弯曲模、塑料模具、铸模等各种模具的型腔表面强化</p>	<p>Surface size of the aviation, energy, automotive and machinery industry, precision mechanical parts, recovery, surface wear strengthening, Heat and power plant generator rotor shaft, the sealing section of the turbine rotor shaft diameter and the bearing surface size to restore the complete sets of technology. Die, large drawing mold, metal pressure die, bending die, plastic mold, mold and other mold cavity surface hardening.</p>

5.2.4 DZ9000E— 超音速火焰喷涂设备

5.2.4 DZ9000E-GHVOF Spray Equipment



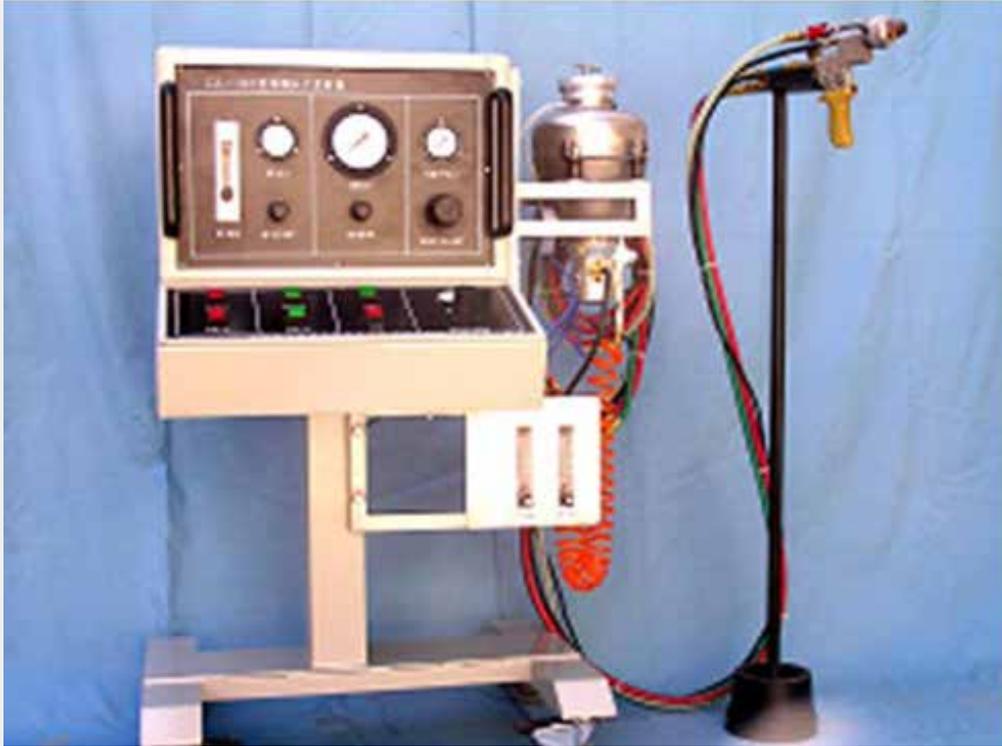
产品简介

Product Introduction

<p>系统特色 涂层性能接近或达到燃油 LHVOF 性能; 满足用户对低成本 HVOF 涂层应用的要求; 采用空气冷却方式, 无需大流量制冷机组; 运行成本降低为传统 LHVOF 的 1/3; 低成本高性能涂层提高产品的竞争力; 使用丙烷气体, 规避航空煤油紧缺风险; 操作简单, 配件寿命长 维修容易; 移动方便, 适宜现场大件施工。</p>	<p>System features Coating performance is close to or reach fuel LHVOF performance; To meet the requirements of the users of low-cost HVOF coating application; Air cooling, no large flow of the refrigeration unit; Reduce operating costs for the traditional LHVOF 1/3; Low cost, high performance coating to improve the competitiveness of their products; Use of propane gas, to avoid the shortage of aviation kerosene risk; Simple operation, and accessories long life, easy maintenance; Easy to move suitable site large construction.</p>
<p>氧气: 工作压力 4.0Mpa 流量 20M³/h 丙烷: 工作压力 0.9Mpa 流量 5.4M³/h 压缩空气 0.7Mpa 电能消耗 28KW</p>	<p>Oxygen: Working pressure 4.0Mpa Flow 20M³ / h Propane: Working pressure 0.9Mpa Flow 5.4M³ / h Compressed air 0.7Mpa Power consumption of 28KW compress air:0.7MPa Energy consumption:28KW</p>

5.2.5 DZ-5000NL 喷涂设备

5.2.5 Flame Spray Equipment



产品简介

Product Introduction

<p>喷涂效率：7-10Kg/小时 沉积效率可达 90% 高精度沸腾床式送粉器，送粉精度 $< \pm 5\%$ 送粉量可在 0.5-15Kg/h 范围任意调整，送粉粒度范围 10-160um</p>	<p>Coating efficiency of 7-10Kg / hour Deposition efficiency of up to 90% Precision boiling bed type powder feeder, powder feeding accuracy of $< \pm 5\%$ The powder feed rate in the 0.5-15Kg / h, the scope of any adjustment of the particle size range of powder feeding 10-160um</p>
<p>专用的梅花形喷涂嘴，大幅度提高喷涂效率和沉积效率，以喷涂 Ni 基粉末为例，喷涂效率为 7-10Kg/小时，沉积效率可达 90%。 采用特制耐高温铜合金喷嘴，使用寿命是普通紫铜喷嘴寿命的 3 倍。 高精度沸腾床式送粉器，送粉精度 $< \pm 5\%$，送粉量可在 0.5-15 Kg/h 范围任意调整，送粉粒度范围 10-160 μm。 特殊氟塑料送粉管保证送粉器与喷涂枪距离达 4m 时稳定送粉。 一键式的电、气操控，操作更加便捷。</p>	<p>Dedicated plum-shaped spray nozzle, a substantial increase spraying efficiency and deposition efficiency sprayed Ni-based powder coating efficiency for 7-10Kg / hour, the deposition efficiency of up to 90%. Using a special high-temperature copper alloy nozzle service life three times that of ordinary copper nozzle life. Precision boiling bed type powder feeder, powder feeding accuracy of $< \pm 5\%$, the powder feed rate in the 0.5-15 Kg / h, the scope of any adjustment, send the powder particle size range 10-160μm. Special fluorine plastic feed pipe to ensure stability of the powder feeder and spray gun distance of 4m powder feeding. A key type of electricity, gas control, more convenient operation.</p>

5.2.6 DZ300L/300E/500E 电弧喷涂设备

5.2.6 DZ300L/300E/500EARC Spray Equipment



产品简介

Product Introduction

<p>DZ500E 工作电压：20-40V 工作电流：80-300A 暂载率：60% 整机重量：115kg 丝材直径：1.6/2.0mm 2.0/3.0mm</p>	<p>DZ500E Operating voltage: 20v ~ 40V Operating current: 80 ~ 300A Duty cycle: 60% Total Weight: 110kg Wire diameter: 1.6/2.0mm 2.0/3.0mm</p>
<p>特点及应用范围： 1. 配备推丝式高能电弧喷涂枪； 2. 适用于直径 1.6/2.0mm 的锌、铝及钢丝喷涂。</p>	<p>Applications: Widely used in a large area of corrosion of the steel, cement components, ductile iron pipe; In pulverized coal boilers, "four" anti-corrosion wear, abrasive wear resistance of the fluidized bed boiler lining coating manufacturing excellence; The antiscale temperature of the surface of the key equipment of the steel industry, the converter hoods, fan impeller strengthen the coating manufacturing; Cu, non-ferrous metals and stainless steel spray; Rapid tooling; Decorative coatings, electrostatic, electromagnetic shielding coating manufacturing; Large-scale brazing filler metal spraying process; The surface size of the critical machine parts recovery (repair) and durable anti-corrosion coating manufacturing.</p>

5.3 伸缩臂叉车 5.3 Telescopic handler

5.3.1 多功能伸缩臂叉车 5.3.1 Multi-functional Telescopic handler



产品简介

伸缩臂叉车是北京金轮坤天特种机械有限公司自主研发的新一代集机、电、液一体的多功能搬运、举重物流设备，其各项性能指标达到国际先进水平。该车结构紧凑，操纵灵活，越野性能强，易于维护保养，是现代农业最理想的高效装卸搬运工具。可广泛应用于农业耕作及料厂、工厂、仓库、码头、建筑工地等场所。

Product Introduction

The telescopic handler is the Beijing Golden Wheel Special Machine Co.,Ltd. developed a new generation of machine, electrical, hydraulic and multifunctional transport, the weightlifting logistics equipment, its performance indicators have reached international advanced level. The car is compact, flexible manipulation, off-road performance, easy maintenance, is the best of modern agriculture and efficient loading and unloading tools.Can be widely used in farming and feed plants, factories, warehouses, docks, construction sites and other places.

<p>TH4008 技术参数</p> <p>整备质量：10500Kg</p> <p>空载牵引力（在水平干硬混凝土路面上）：70kN</p> <p>最高行驶速度（空载）：27.6Km/h</p> <p>最大举升高度：8300mm</p> <p>额定举升质量：4000Kg</p> <p>外形尺寸</p> <p>总长：7145mm</p> <p>总宽：2480mm</p> <p>总高：2660mm</p> <p>离地间隙：480mm</p> <p>最小转弯直径：3950mm</p> <p>发动机功率：74.5kW</p>	<p>TH4008 technical parameters</p> <p>Curb weight: 10500Kg</p> <p>No-load traction (in the horizontal dry hard concrete pavement): 70kN</p> <p>The maximum speed (no load): 27.6Km / h</p> <p>Maximum lifting height: 8300mm</p> <p>Rated lifting weight: 4000Kg</p> <p>Dimensions</p> <p>Length: 7145mm</p> <p>Overall Width: 2480mm</p> <p>Total height: 2660mm</p> <p>Ground clearance: 480mm</p> <p>Minimum turning diameter: 3950mm</p> <p>Engine power: 74.5kW</p>
<p>TH4013SL 技术参数</p> <p>最大举升重量（kg）：4000</p> <p>最大举升高度（mm）：13000</p> <p>整车尺寸（长×宽×高）（mm）：7154×2480×2620</p> <p>最小离地间隙（mm）：480</p> <p>空载最大牵引力（kN）：70</p> <p>整机重量（kg）：11620</p> <p>发动机功率（kW）：74.5</p> <p>最小转弯半径（mm）：3950</p> <p>最高行驶速度(km/h)：27.6</p> <p>传动形式：液力</p> <p>转向模式：四轮转向、可两轮、向心、蟹行三种转向方式互换</p>	<p>TH4013SL technical parameters</p> <p>Maximum Lifting Weight (kg): 4000</p> <p>Maximum lifting height (mm): 13000</p> <p>Vehicle size (length × width × height) (mm): 7154 × 2480 × 2620</p> <p>Minimum ground clearance (mm): 480</p> <p>No-load maximum traction force (kN): 70</p> <p>Machine weight (kg): 11 620</p> <p>Engine power (kW): 74.5</p> <p>Minimum turning radius (mm): 3950</p> <p>The maximum speed (km / h): 27.6</p> <p>Transmission form: HYDRAULIC</p> <p>Steering modes: four-wheel steering can be two, three kinds of steering to the heart, crab swap</p>
<p>TH4009A</p> <p>最大举升重量（kg）：4000</p> <p>最大举升高度（mm）：8000</p> <p>整车尺寸（长×宽×高）（mm）：6540×2320×2590</p> <p>最小离地间隙（mm）：450</p> <p>空载最大牵引力（kN）：34</p> <p>整机重量（kg）：8890</p> <p>发动机功率（kW）：60</p> <p>最小转弯半径（mm）：4850</p> <p>最高行驶速度(km/h)：27</p> <p>传动形式：液力</p> <p>转向模式：四轮转向、可两轮、向心、蟹行三种转向方式互换</p>	<p>TH4009A technical parameters</p> <p>Maximum Lifting Weight (kg): 4000</p> <p>Maximum lifting height (mm): 8000</p> <p>Vehicle size (length × width × height) (mm): 6.54 thousand × 2320 × 2590</p> <p>Minimum ground clearance (mm): 450</p> <p>No-load maximum traction force (kN): 34</p> <p>Machine weight (kg): 8.89 thousand</p> <p>Engine power (kW): 60</p> <p>Minimum turning radius (mm): 4850</p> <p>The maximum speed (km / h): 27</p> <p>Transmission form: HYDRAULIC</p> <p>Steering modes: four-wheel steering can be two, three kinds of steering to the heart, crab swap</p>

<p>TH4009B</p> <p>最大举升重量 (kg): 4000</p> <p>最大举升高度 (mm): 9300</p> <p>整车尺寸 (长×宽×高) (mm): 7154 × 2480 × 2660</p> <p>最小离地间隙 (mm): 480</p> <p>空载最大牵引力 (kN): 70</p> <p>整机重量 (kg): 10520</p> <p>发动机功率 (kW): 74.5</p> <p>最小转弯半径 (mm): 3950</p> <p>最高行驶速度(km/h): 27.6</p> <p>传动形式: 液力</p> <p>转向模式: 四轮转向、可两轮、向心、蟹行三种转向方式互换</p>	<p>TH4009B technical parameters</p> <p>Maximum Lifting Weight (kg): 4000</p> <p>Maximum lifting height (mm): 9300</p> <p>Vehicle size (length × width × height) (mm): 7154 × 2480 × 2660</p> <p>Minimum ground clearance (mm): 480</p> <p>No-load maximum traction force (kN): 70</p> <p>Machine weight (kg): 10.52 thousand</p> <p>Engine power (kW): 74.5</p> <p>Minimum turning radius (mm): 3950</p> <p>The maximum speed (km / h): 27.6</p> <p>Transmission form: HYDRAULIC</p> <p>Steering modes: four-wheel steering can be two, three kinds of steering to the heart, crab swap</p>
<p>TH3004</p> <p>最大举升重量 (kg): 3000</p> <p>最大举升高度 (mm): 4030</p> <p>整车尺寸 (长×宽×高) (mm): 4120 × 1410 × 2320</p> <p>最小离地间隙 (mm): 200</p> <p>空载最大牵引力 (kN): 21.8</p> <p>整机重量 (kg): 5300</p> <p>发动机功率 (kW): 37</p> <p>最小转弯半径 (mm): 2925</p> <p>最高行驶速度(km/h): 18.5</p> <p>传动形式: 静液压</p> <p>转向模式: 两轮</p>	<p>TH3004 technical parameters</p> <p>Maximum Lifting Weight (kg): 3000</p> <p>Maximum lifting height (mm): 4030</p> <p>Vehicle size (length × width × height) (mm): 4120 × 1410 × 2320</p> <p>Minimum ground clearance (mm): 200</p> <p>No-load maximum traction force (kN): 21.8</p> <p>Machine weight (kg): 5300</p> <p>Engine power (kW): 37</p> <p>Minimum turning radius (mm): 2925</p> <p>The maximum speed (km / h): 18.5</p> <p>Transmission Type: Hydrostatic</p> <p>Steering modes: two steering</p>
<p>TH2506</p> <p>最大举升重量 (kg): 2500</p> <p>最大举升高度 (mm): 5950</p> <p>整车尺寸 (长×宽×高) (mm): 4775 × 15200 × 2280</p> <p>最小离地间隙 (mm): 135</p> <p>空载最大牵引力 (kN): 12</p> <p>整机重量 (kg): 5700</p> <p>发动机功率 (kW): 42</p> <p>最小转弯半径 (mm): 2780</p> <p>最高行驶速度(km/h): 20</p> <p>传动形式: 液力</p> <p>转向模式: 四轮转向、可两轮、向心、蟹行三种转向方式互换</p>	<p>TH2506 technical parameters</p> <p>Maximum Lifting Weight (kg): 2500</p> <p>Maximum lifting height (mm): 5950</p> <p>Vehicle size (length × width × height) (mm): 4 775 × 15.2 thousand × 2280</p> <p>Minimum ground clearance (mm): 135</p> <p>No-load maximum traction force (kN): 12</p> <p>Machine weight (kg): 5700</p> <p>Engine power (kW): 42</p> <p>Minimum turning radius (mm): 2780</p> <p>The maximum speed (km / h): 20</p> <p>Transmission form: HYDRAULIC</p> <p>Steering modes: four-wheel steering can be two, three kinds of steering to the heart, crab swap</p>

5.4 污水处理装置

5.4 Sewage Treatment Equipment

5.4.1 YSF 船用油污水处理设备

5.4.1 YSF Marine Oil-water Treatment Equipment



产品简介

YSF 型油污水处理设备是北京金轮坤天特种机械有限公司自主研发的一种新型油水分离装置。它是一种结构紧凑、占地面积小、过滤效果好和可靠性高油水分离器，它不仅适用于船用舱底油污水的分离，还可用于工矿企业的油污水处理，处理后的水符合我国环保部门对水中含油量的规定值（小于 15ppm）。

Product Introduction

The YSF Oil Pollution of water treatment equipment is Beijing Golden Wheel Special Machine Co.,Ltd. independently developed a new type of oil-water separation devices. It is a compact, small footprint, filter effects and high reliability oil-water separator, it applies not only to marine bilge oil sewage separation, but also for the oily water in industry, the treated water complies with China's environmental protection department of the specified value of the oil content in water (less than 15ppm).

型号	处理能力 (m³/h)	排放标准	柱塞泵		
			型号	流量 (m³/h)	电机功率 (kW)
YSF-1.0	1.0	≤15ppm 满足 IMO MEPC107 (49)	DZ-1000	1.0	0.25
电加热功率 (kW)	控制方式	排油方式	电源		
3	自动/手动	自动/手动	380v/50HZ		

Model	Processing capacity (m³ / h)	Emission standards	Piston pump		
			Model	Flow rate (m³ / h)	Motor Power (kW)
YSF-1.0	1.0	≤ 15ppm Meet the IMO MEPC107 (49)	DZ-1000	1.0	0.25
Heating power (kW)	Control mode	Oil discharge mode	Power		
3	Auto / Manual	Auto / Manual	380v/50HZ		

5.4.2 CLJ 系列餐厨垃圾处理设备

5.4.2 CLJ Food Waste Treatment Equipment



产品简介

CLJ 系列餐厨垃圾处理设备采用变温干燥、杀菌、真空包装等工序，变温干燥技术可根据处理物含水量的变化调节加热体温度，实现餐厨垃圾快速脱水。可满足 50 ~ 600 人日常生活餐厨垃圾的处理，实现餐厨垃圾减容、减重、长时间无味储存的目的。

主要技术参数

- 1、成品包装形式：真空包装
- 2、减容率：原料的 60 ~ 75%
- 3、减重率：原料的 60 ~ 75%
- 4、成品保质期限：≥ 100 天

Product Introduction

CLJ Food Waste Processing Equipment using variable temperature drying, sterilization, vacuum packaging processes, the use of variable temperature drying technology, according to deal with changes in moisture content to adjust the temperature of the heating body to achieve rapid dehydration of food waste. To meet the 50 to 600 people daily life of the processing of food waste, to achieve food waste volume reduction, weight loss, long tasteless storage purposes.

The main technical parameters

1. the form of product packaging: vacuum packaging
2. the volume reduction rate: raw materials 60 to 75%
3. the rate of weight loss: raw materials 60 to 75%
4. the finished product a shelf life: ≥ 100 days

产品型号

型号规格	最大用餐人数	最大单次处理量 (kg)	最大加热功率 (KW)	外形尺寸/mm
CLJ20	70	20/次	12	1000×600×800
CLJ50	150	50/次	15	1120×600×800
CLJ100	300	100/次	18	1233×860×1095
CLJ200	600	200/次	24	1600×1080×1300

Product Type

Model Specification	The maximum number of meals	The largest single volume (kg)	The largest single volume (kg)	Dimensions/mm
CLJ20	70	20/次	12	1000×600×800
CLJ50	150	50/次	15	1120×600×800
CLJ100	300	100/次	18	1233×860×1095
CLJ200	600	200/次	24	1600×1080×1300

5.4.3 CWM 系列船用生活污水处理装置

5.4.3 CWM Ship Sewage Treatment Plant



产品简介

CWM 系列新型船用生活污水处理装置采用 MBR 工艺处理船舶生活污水，本装置的结构型式和性能均能满足 MEPC.159 (55) 《执行污水排放标准和污水处理装置性能试验准则的修订案》的要求，具有体积小、重量轻、结构紧凑、自动化程度高等特点。适用于各种船舶、石油平台原有污水处理设备的更新以及新船的装备配置。

Product Introduction

To adapt the update regulation of the MARPOL 73/78, REEI has successive developed the CWM series ship sewage (gray and black water) treatment plant by the particular MBR treatment system. The treatment plant is compact in structure, PLC auto controlling and monitoring, quick start and limited maintenance. The effluent is colorless and tasteless, not only fit the update discharge standard of MARPOL 73/78, but also can be recycled for washing etc. It can be applied for replace the old sewage treatment of all kinds of ship, oil rigs and for new building ships.

产品型号

型号	CWM-50	CWM-100	CWM-150	CWM-200	CWM-300	CWM-400	CWM-500
适用人数	50	100	150	200	300	400	500
最大使用人数	55	110	165	220	330	440	550
液力负荷 t/d	3.5	7	10.5	14	21	28	35
有机负荷 kg/d	1.8	3.5	3.9	7	10.5	14	17.5
箱体尺寸 mm	1500×1200×1400	2000×1800×1500	2000×2000×1800	2500×2000×2000	3000×2200×2200	3500×2400×2300	4200×2400×2300
最大外形尺寸 mm	1900×1500×1600	1800×2000×1800	2000×2200×2000	2200×2400×2200	2500×2500×2200	3500×2500×2200	4500×2700×2200
空重 (kg)	1650	2500	2800	3200	3600	5300	6500
湿重 (kg)	5400	7700	10200	12500	15000	22000	28000
排放标准	大肠菌群 <100 个/100ml; SS<35mg/l; BOD5<25 mg/l; COD<125 mg/l; PH=6~8.5						

Product Type

Model	CWM-20	CWM-50	CWM-60	CWM-80	CWM-100	CWM-200	CWM-300	CWM-500
Hydraulic load(t/d)	1.5	3.5	4.5	6	7.5	11	22	35
Emissions standards	E.coli <100/100ml; Ss <35mg/l; BOD5 <25mg/l; COD <125mg/l; PH=6~8.5							
Current	3ph/380V/50Hz; 3ph/440V/60Hz; Power: 5.5KW							
Control	automatic/manual							

5.4.4 LWM 系列一体化中水处理设备 5.4.4 LWM Integrative Sewage Recycling Plant



产品简介

为适应新农村建设、水源保护地、生活小区、旅游景点的污水分散式处理；中水回用洗车、园林灌溉、景观用水等需要，我院采用膜生物过滤技术开发研制了LWM 系列一体化中水回用设备。本设备具有体积小、重量轻、结构紧凑、自动化程度高等优点，出水水质能够满足 GB/T18921-2002 《城市污水再生利用 景观环境用水水质》。

Product Introduction

The LWM integrative sewage recycling plant is composed of Bioreactor and membrane separate system. It can treat the living sewage into recycling water for irrigation, car wash, toilet flushing, etc. The plant is small in size, Less room occupation, auto operation and maintenance. There is no necessary of settlement tank, sand filter system and frequently soil water discharging.

产品型号

型号	LWM-5	LWM-10	LWM-20	LWM-30	LWM-40	LWM-50
日处理量 t/d	5	10	20	30	40	50
有机负荷 kg/d	2.5	3.9	10.5	14	20	25
箱体尺寸 (mm)	1800×1500×1500	2000×2000×1800	3000×2200×2200	3500×2400×2300	4200×3000×2300	4500×3500×2300
最大外形 尺寸(mm)	2200×1800×1700	2000×2000×1800	2500×2500×2100	4000×2700×2500	4500×3300×2500	4800×3800×2500
空重 (kg)	1900	2800	3500	5500	7000	10000
湿重 (kg)	5500	10200	14500	22000	29100	40000
排放标准 GB/T18921-2002	大肠菌群 <100个/100ml; SS<10mg/l; BOD5<10 mg/l; 浊度 (NTU) <5 ; PH=6~9; 溶解氧>2.0; 氨氮<5mg/l; 色度<30; 石油类<1.0; 总氮<15; 总磷<1.0					

Product Type

Model	LWM-5	LWM-10	LWM-20	LWM-30	LWM-40	LWM-50
Organic Load(kg/d)	0.7	1.5	2.2	3	3.5	5
Emissions standards	E.coli<100/100ml;Ss<35mg/l;BOD5<10mg/l;COD<125mg/l;PH=6~9					
Current	380V/50Hz;Power:5.5KW					
Control	automatic/manual					

5.5 工业炉及特种装备

5.5 Industrial heat treatment

5.5.1 特种装备——工业加热炉窑

5.5.1 Industrial heat treatment



产品简介

1、工业热处理炉系列

蓄热燃烧节能型室式炉 / 大型台车炉、可变容积大型台车式炉（燃烧加热 / 电加热）、链式 / 步进式 / 推杆式连续退火炉机组、真空炉、外热真空炉、预抽真空（无氧化加热）炉、粉末冶金烧结炉、井式气体渗碳 / 氮化炉、台车式电阻炉、转底式炉、网带炉热处理机组、汽轮机转子热跑炉、钎焊炉等。

2、热风循环炉系列（预热、烘干、固化、脱氢、回火、时效处理）

太阳能电池板固化机组、结构泡沫材料烘烤炉、真空玻璃封口炉、箱式 / 台车式 / 网带式热风循环炉、连续固化炉生产线。

3、有色金属、非晶 / 超微晶材料热处理炉系列

非晶 / 超微晶铁心热处理炉、铝合金淬火 / 时效炉机组、多工位铝型材模具加热炉、多工位铜材 / 铝材退火炉。

出口业绩

2012 年至 2013 年期间，出口德国 GEA 公司钎焊炉、预热炉、铝合金炉等设备，合计出口金额 25 万美金。

Product Introduction

1. Industrial heat treatment furnaces series

Regenerative combustion energy-saving room type furnace/large car-bottom furnace, variable volume large car-bottom furnace (heating combustion/ electrical heating), chained/marching type/pushrod continous annealing furnace unit, vacuum furnace, external thermal vacuum furnace, forvacuum (scale-free heating) furnace, well type gas carburizing/nitriding furnace, car type resistance furnace, rotary heath furnace, mesh-belt furnace heat treatment units, steam turbine rotor hot run furnace, brazing stove, etc.

2. Recirculation furnace series (drying, curing, dehydrogenation, tempering, ageing, etc.) Solar panels curing unit, structure foam material baking furnace, vacuum glass sealing furnace, box type recirculation furnace, car type recirculation furnace, mesh-belt recirculation furnace and continuous curing oven production line.

3. Non-ferrous metal, amorphous/ultra-crystallite materials heat treatment furnace series Amorphous/ultra-crystallite iron core heat treatment furnace, aluminum alloy quenching/aging furnace units, multi-station aluminum profile mold heating furnace, multi-station copper/aluminum annealing furnace.

Export Performance

During 2012-2013, exported to Germany GEA brazing furnace, preheating furnace, aluminum furnace and other equipment, the total export value of 250,000 dollars.

5.5.2 耐磨复合钢板

5.5.2 Wear-resistant complex steel plate



产品简介

耐磨复合钢板是中国农机院工艺材料研究所在其承担的国家项目基础上，于九十年代初首家在国内进行产业化生产的。

其主要生产产品及加工项目：电铲铲斗衬板，18+12mm，水泥立磨风环，直径8000mm，10+6mm堆焊，陶瓷复合钢板45mm厚。水泥磨辊磨盘堆焊，堆焊复合钢板及制作各种耐磨配件。陶瓷复合钢板、磨辊和磨盘堆焊修复。

Product Introduction

Wear-resistant complex steel plate adopts buildup welding technique on the ordinary carbon steel surface to prepare high wear resistance alloy layer, its surface hardness can achieve HRC56-62.

Because of the good manufacturing process and excellent alloy formula, its wear resistance is 30 times of ordinary carbon steel, has double composite performance with both excellent abrasion resistance and good shock resistance, and widely used in large area abrasion resistant engineering and equipment.

In China, MTI is the first unit to achieve the industrialized production of the wear-resistant complex steel plate, and it has been gained a lot of popularization and application in related industrial areas.

主要技术参数
Specification

材质	普碳钢基材+碳化铬耐磨合金层
常用规格 (基材厚度+合金层厚度)	6+3, 6+4, 8+3, 8+4, 8+5, 10+5, 10+10 也可根据用户要求制作
板幅规格	1400×1850; 1400×2200; 1400×3000, 也可根据用户要求制作
合金成分及金相组织	C: 4-5%, Cr≥26%, 马氏体基体+大量 Cr7C3 型碳化物
硬度	合金层宏观硬度: HRC55~65; 碳化物硬度: HV1400~1800
耐磨损性	是耐磨钢板的 10 倍左右, 是碳钢的 20-30 倍
耐高温性能	普通型 < 600°C, 高温型 < 1000°C
耐冲击性能	耐磨合金层与基材 100%冶金结合, 抗强烈冲击不脱落
可加工性	可焊接、切割、打孔、折弯、滚圆、热模压等
可连接性	可采用焊接螺栓、打孔穿螺栓、塞焊、镶焊等方法与被保护的设备或工件连接在一起
应用行业	选矿、炼铁、焦化、烧结、选煤、水泥、发电、港口、化工等

Performance parameters of Wear plate	
Material	Low carbon base+ Chromium carbide wear-resistant alloy layer
Thickness	Base+ Alloy layer: 6+4, 6+6, 8+3, 8+4, 8+5, 8+6, 10+5, 10+10 etc. Customized according to customer needs
Plate size	1400×1850, 1400×2200, 1400×3000 etc. Customized according to customer needs
Composition	C:4-5%, Cr≥26% / Martensite+ Large Cr7C3 carbide
Hardness	Alloy layer of macro-hardness: HRC55-65 Carbide hardness,HV1400-1800
Applications	Cement, Dressing, Iron, Coking, Sintering, Coal, Generate electricity, Port, Chemical industry.etc

5.5.3 球墨铸管设备

5.5.3 Ductile pipes production line



1、水冷金属型离心铸管机

产品简介

冷模法离心机主要组成：浇注机、离心铸管主机、拔管机、接管机、运管车、称量装置、液压系统和电控系统等。

Product Introduction

Main composition: pouring machine, centrifugal host, drawbench, pipe taking machine, pipe trolley, weighing device, hydraulic system and electric control system, etc.

规格型号表

名称	对应铸管规格	生产效率
DN80-300 水冷离心机	DN80-400	55~42 根/小时
DN80-400 水冷离心机	DN80-400	55~28 根/小时
DN200-600 水冷离心机	DN200-600	48~20 根/小时
DN350-800 水冷离心机	DN400-800	30~12 根/小时
DN900-1400 水冷离心机	DN900-1400	9~5 根/小时

Specification and models table

Name	Specification	Capacity
DN80-300 Water cooling centrifugal casting machine	DN80-400	55~42 pipe/H
DN80-400 Water cooling centrifugal casting machine	DN80-400	55~28 pipe/H
DN200-600 Water cooling centrifugal casting machine	DN200-600	48~20 pipe/H
DN350-800 Water cooling centrifugal casting machine	DN400-800	30~12 pipe/H
DN900-1400 Water cooling centrifugal casting machine	DN900-1400	9~5 pipe/H

2、热膜离心铸造机



产品简介

热模法离心铸管机按管模保护材料可分为树脂砂和涂料两种类型的离心机。

热模离心铸管机基本结构主要分为：浇注系统、离心主机、拔管机构和管模四大部分以及旋转吊具和辅助设施（包括：涂料制备系统、涂料喷涂系统、水冷系统、润滑系统、液压系统）。

Product Introduction

According to the pipe mould materials of hot mould centrifugal casting machine can be divided into two types of resin sand and coating.

Hot mould centrifugal casting machine basic structure is mainly divided into: pouring system, centrifugal host, drawing pipe device and pipe mould and rotating hook and auxiliary equipment (including: coating preparation system, paint spraying system, water cooling system, lubricating system, hydraulic system).

3、连续式退火炉



产品简介

铸管连续式退火炉一般都分为：加热段、保温段、快冷段、缓冷段。

燃料：高炉煤气，天然气，焦炉煤气，柴油。

退火炉炉底倾斜：2%，退火炉输送链链速：0.7 — 1.20 m/min 连续可调。输送链节距为 330mm。

Product Introduction

The continuous annealing furnace are generally divided into: heating section, heat preservation section, fast cooling section, slow cooling section.

Fuel: the blast furnace coal gas, natural gas, coke oven gas, diesel.

Annealing furnace hearth tilt: 2%, annealing furnace chain conveyor chain speed: 0.7 to 1.20 m/min continuously adjustable. Conveyor chain pitch is 330 mm.

规格型号表

名称	退火炉常用长度	生产效率	备注
DN80-1200 连续式退火炉	26m, 36m, 46m, 56m, 60m	47m 炉—15 万吨/年	产量与退火炉长度相关

Specification and models table

Name	Length of annealing furnace	Capacity	Note
DN80-1200 continuous annealing furnace	26m, 36m, 46m, 56m, 60m	47m furnace, 150000 tone/year	The production is associated with the length of the annealing furnace

出口业绩

1. 2007 年—2010 年，印度球墨铸管生产线项目，其中包含离心机设备、退火炉、水泥涂衬机、喷锌机、等上述球墨铸管设备。合同额 35 万美金。

2. 2008 年，印度 LANCO 公司，47m 退火炉项目。合同额 165 万美金。

3. 2010 年，印度 ECL 转包、打点磨削机等球墨铸管设备。合同额 120 万美金。

4. 2011 年，阿联酋水泵房项目。合同额 58 万美金。

5. 2012 年—今，印度 SIL 球墨铸管生产线工程，其中包含离心机设备、60m 退火炉、水泥涂衬机、管膜打点机、喷锌机等精整线球墨铸管设备。合同额 895 万美金。

Export Performance

1. 2007-2010, the Indian ductile pipes production line project, which contains the centrifugal equipment, annealing furnace, cement coating line machine, zinc spraying machine, such as the ductile casting pipe equipment. The contract value of \$350000.

2. In 2008, India LANCO company, 47 m annealing furnace project. The contract value of \$1.65 million.

3. In 2010, India ECL company, converter, grinding machine, such as ductile cast pipe equipment. The value of contract is \$1.2 million.

4. In 2011, the united Arab emirates (uae) water pump plant project. The value of contract is \$580000.

5. 2012 - present, India SIL ductile cast pipe line engineering project, including centrifuge equipment, 60m annealing furnace, cement lining machine, pipe coating machine, spraying zinc and other ductile cast pipe finishing line equipment. The value of contract is \$8.95 million.

5.5.4 热力管道装备

5.5.4 Heat pipe equipment



1、塑料管道弯头镜面焊
Mirror surface welding machine for plastic piping elbows



2、手提塑料挤出焊机
Plastic pipe planetary sawing machine

产品简介

1、塑料管道弯头镜面焊机

塑料管道弯头镜面焊接技术，在加热板式塑料管对接技术的基础上加以改进，专门用于焊接塑料管道弯管接头，已应用了40多年。工程实践证明，这种焊接技术能可靠地生产高质量的焊接接头，并极大的改善焊缝质量和可用性方面。其特点是：焊缝强度与母材强度匹配；弯屈角度调节简便，接头端面对中精确。

焊接时塑料管弯头处于固定状态和恒定的焊接压力之下，直至塑性区完全重新凝固为止，实现焊接。焊接时接头处于塑性状态，没有拉伸或塑性应力的作用，在这种固定状态下一直保持到塑性区重新恢复材料本来的强度时结束。该强度不但能满足普通拉伸实验所要求的结果，而且与母材的持久拉伸试验的失效值一致。

2、手提塑料挤出焊机

产品型号： HE-2000

焊接材料： PE / PP

焊接速度： 1.0 kg/h(直径3mm 丝)

8.0 kg/h(直径4mm 丝)

焊丝直径： 3 mm , 4 mm

送丝方式： 送丝轮

焊接厚度： 4-12 mm

驱动电机： 800 W, 220 VAC

挤出加热管： 500 W, 220 VAC

热风功率： 2000 W

空气来源： 自供

冷启动保护： 电子设置低温关闭

Product Introduction

Heat pipe equipment

We professional designs and manufactures various prefabricated direct buried type thermal insulation pipe production or construction equipment and technology, can provide the following equipments:

- Mirror surface welding machine for plastic piping elbows
- Plastic pipe planetary sawing machine
- Portable plastics extrusion welding machine
- Plastic pipe inner surface corona processing system
- Electric hot melt sleevelet and repaired mouth
- Steel tube preheating furnace

Whole set of solutions for thermal insulation pipe production or construction equipment can be provided.

5.5.5 特种装备——真空消失模

5.5.5 Vacuum EPC



产品简介

消失模铸造技术又称为“绿色铸造”，生产线采用 PLC 控制，自动化程度高，运行可靠，具有国际先进水平，可广泛用于铸铁、铸钢、铸铝等铸件的生产。

- i. 消失模成型设备
- ii. 消失模铸造柔性自动生产线消失模砂处理线
- iii. 消失模铸造造型线
- iv. 铸件精整线
- v. 铸件喷涂线
- vi. 消失模模具

出口业绩

2008 年，印度 ECL 消失模模具设备。合同额 10 万美金。2013 年，同印度 ECL 公司签订消失模管件生产线合同，合同金额 175 万美金，目前，该项目正在执行过程中，预计年底完成。

Product Introduction

Vacuum EPC technology is also known as the "green casting" production line, it using PLC control and has high degree of automation, reliable operation, and possess international advanced level, can be widely used in the castings production such as cast iron, cast steel, and cast aluminum etc.

- i. EPC molding equipment
- ii. EPC flexible automatic production line
- iii. EPC sand processing line
- iv. EPC molding line
- v. Casting finishing line
- vi. Casting painting line
- vii. EPC die

Export Performance

In 2008, India ECL devices, Contract amount of \$ 100,000. In 2013, the company signed with India ECL LFC pipe production line contract, the contract amount of U.S. \$ 1,750,000, at present, the project is in the implementation process, expected to be completed by year end.

6. 筑路机械 6. Road-building Machinery

6.1 沥青混凝土摊铺机 6.1 Asphalt Paver



SP45S-T 型摊铺机
SP45S-T Paver



SP160 型摊铺机
SP160 Paver



SP120-2 型摊铺机
SP120-2 Paver



SP90S-2 型摊铺机
SP90S-2 Paver



SP45S-W 型摊铺机
 SP45S-W Paver

产品简介

SP 系列多功能摊铺机是北京天顺长城液压科技有限公司针对高速公路、高等级公路、机场跑道、铁路路基、市政道路需要，结合我国公路施工实践，开发生产的高端摊铺机产品，可完成沥青混凝土、基层稳定土、水泥稳定土和级配碎石等多种材料的摊铺作业，具有大功率储备、高配置、高精度、高可靠性和多功能等特点。TSUN 从 2003 年开始，不断研发创新，使 SP 系列摊铺机实现了系列化，包括履带式 and 轮式，摊铺厚度从 5-500mm，摊铺宽度从 0.8-16m，产品获得 10 余项专利。至今，已有 400 台 SP 系列摊铺机在中国各地施工，表现非凡，深得用户好评与信赖，已成为能替代进口摊铺机的高端产品。

Product Introduction

The TSUN paver-finishers, series SP, are designed for paving asphalt mix, sub-base soil-cement, soil cement and graded broken stone in construction of main road, highway, airfield, railway bed and municipal road by incorporating the unique Chinese road-building practice. The paver series features ample power reserve, specially selected spare parts, unparalleled reliability, superb working quality and versatility. TSUN started manufacturing paver-finishers in 2003. Now the product series includes both tracked to wheeled versions, with paving thickness ranging from 5 up to 500 mm and width from 0.8 m up to 16 m. Meanwhile, we have been licensed over 10 patents through constant innovation. So far, some 400 SP pavers are operating across the country and very well accepted by users for their extraordinary and excellent performance as high-end products and substitutes of similar imported ones.

主要技术参数
Specification

型号	Model	SP45S-T/W	SP90S-2	SP90/SP120-2	SP160
摊铺宽度	Paving width(m)	0.8~4.5	3~9	2.5~9/2.5~12	3~16
最大摊铺厚度	Max.paving thickness(mm)	280	350	350	500
理论生产率	Calculated lay-down rate(t/h)	150	800	800	1500
料斗容积	Capacity of hopper(t)	8	14	14	17.5
摊铺速度	Paving(m/min)	0~35/0~35	0~18	0~18	0~18
行走速度	Transport speed(km/h)	0~5.4/0~14	0~3.6	0~3.6	0~3.6
平整度误差值	Evenness(mm/3m)	≤2	≤2	≤2	≤2
摊铺机总质量	Gross Weight(t)	7.2	25.5/25.3	25.5/26.5	38
行走方式	Travel Drive	履带式/轮式 Tracked/Wheeled, 4W Drive	履带式 Tracked	履带式 Tracked	履带式 Tracked
履带接地面积	Ground Contact Area (mm×mm)	2030×256/6-Wheel	3085×320	3085×320	3208×400
熨平板拼接方式	Screed Extension	液压伸缩 Hydraulic	液压伸缩 Hydraulic	机械拼接 Manual	机械拼接 Manual
加热方式	Screed Pre-heating System	电加热/燃气加热(可选) Gas/Electric (Optional)	电加热/燃气加热(可选) Gas/Electric (Optional)	燃气加热 Gas	燃气加热 Gas
拱度调节	Range of Crown Adjustment(%)	-2~+4.5	-2~+4	-2~+4	-2~+4
发动机品牌	Engine Make	Deutz	Volvo/Deutz	Volvo/Deutz	Volvo
发动机功率	Rated Output(kW)	55	174	174/200	280
运输尺寸	Transport Dimensions(mm)	5120×2000×2600	6260×3000×2950	6260×2500×2950	6890×3000×3200

7 试验机

7 Testing machine

7.1 动态试验机

7.1 Dynamic testing machine

7.1.1 电液伺服动静疲劳试验机（双立柱）

7.1.1 Dynamic static electro-hydraulic servo fatigue testing machines



SDS 系列电液伺服动静疲劳试验机（双立柱）

SDS series dynamic static electro-hydraulic servo testing machine (double column)



SDS 系列电液伺服动静疲劳试验机（卧式）

SDS series dynamic static electro-hydraulic servo testing machine (horizontal)

产品简介

型号：SDS 系列

（测控部分采用我院最新研制的 IDCD2K 型全数字电液伺服控制器）

主要用途

主要用于测试各种金属、非金属（高强塑料橡胶件密封件等）、复合材料以及零部件的动静力学性能实验，可以进行拉伸、压缩、动态高周疲劳、程控疲劳、低周疲劳、断裂力学以及静态的恒变形速率、恒负荷速率和各种常规的力学性能试验。配上相应附件可以进行疲劳裂纹扩展、模拟实际工况、以及高低温力学性能等。试验是航天、航空、冶金、交通、科研院所和大专院校等各行业进行动态试验的理想设备。

Product Introduction

Model: SDS

Specifications

It is mainly used for metal, non-metal (high strong plastics, rubbers), composite material parts .

Uses:

SDS series dynamic static electro-hydraulic servo testing machines match the digital electro-hydraulic servo-IDCD2K which is designed manufactured by our own company, and used for the mechanical testing of tension, compression, fatigue and braking. The SDS Series testing machines are also mainly used for metal, non-metal (high strong plastics, rubbers), composite parts to test the dynamic and static force property. It is the ideal equipment in aerospace, aviation, metallurgy, transportation, research institutes and universities, and other sectors of the dynamic tests.

主要技术参数

型号		SDS50	SDS100	SDS200
最大负荷	静态	± 50	± 100	± 200
	动态	50	100	200
测量精度	负荷	示值的±1.0%，；衰减为1、5倍		
	位移	±1.0%F.S 每档；衰减为1、5倍		
	变形	示值的±1.0%，；衰减为1、5倍		
控制参数	函数发生器频率范围	0.01~10HZ 可变更；函数发生器可发正弦、三角、方波、斜波及组合波等命令波形，且可外信号输入。波形频率范围 0.01-100HZ		
	闭环速率	5000HZ（更新速率）		
	整机频率	50HZ		40HZ
	油缸行程	± 50（mm）		
主机	立柱距离	500mm	565mm	700mm
	主机重量	700kg	900kg	1500kg
	主机高度	2000mm	2200mm	2500mm
	主机形式	双柱		
	夹头距离	50~600（mm）		
	整机功率	380v 22kw	380v 30kw	380v 37kw

Specification

Model		SDS50	SDS100	SDS200	SDS500	SDS750	SDS1000
Load capacity	Static	± 50	± 100	± 200	± 500	± 750	± 1000
	Dynamic	50	100	200	500	750	1000
Measurement precision	Load	± 1.0% of the indicating value, the decaying multiple is 1 or 5					
	Displacement	± 1.0%F.S /grade, the decaying multiple is 1 or 5					
	Deformation	± 1.0% of the indicating value, the decaying multiple is 1 or 5					
Control parameters	Function generator(frequency range)	0.01~100HZ, alterable; the function generator could generate the sine wave, triangular wave, square wave, oblique compositive wave.					
	Rate of closed loop	5000HZ(updating rate)					
	Distance of hydro-cylinder	± 50mm					
Mainframe	Distance between posts	500mm	565mm	700mm	820mm	820mm	1000mm
	Weight	700kg	900 kg	1500 kg	3500 kg	5000 kg	7000 kg
	Height	2000mm	2200mm	2500mm	3000mm	3200mm	3200mm
	Frame style	Double or four posts					
	Distance between grips	50~600mm					
	Power supply	380v, 22kw	380v, 30kw	380v, 37kw	380v, 75kw	380v, 75kw	380v, 75kw

7.1.2 伺服动静疲劳试验机（四立柱）

7.1.2 Dynamic static electro-hydraulic servo fatigue testing machines



产品简介

型号：SD 系列

（测控部分可配备德国 DOLI 公司 580 系列控制器、美国 MOOG 公司 FCSS MARTTEEST 系列控制器，美国 MTS 公司 FLEXTTEST 系列控制器，德国 INOVA 公司 EU 系列控制器及相关动态测试软件）

主要用途

主要用于测试各种金属、非金属（高强塑料橡胶件密封件等）、复合材料以及零部件的动静态力学性能实验，可以进行拉伸、压缩、动态高周疲劳、程控疲劳、低周疲劳、断裂力学以及静态的恒变形速率、恒负荷速率和各种常规的力学性能试验。配上相应附件可以进行疲劳裂纹扩展、模拟实际工况、以及高低温力学性能等试验是航天、航空、冶金、交通、科研院所和大专院校等各行业进行动态试验的理想设备。

Product Introduction

Model: SD

(Measurement and control part is 580 series controller from Doli in Germany, and FCSS Martteest controller of MOOG in America, and FLEXTTEST controller of MTS in America, and EU series controller from INOVA)

Specifications

It is mainly used for dynamic and static force property testing of metal, nonmetal (high strong plastics, rubbers), composite material parts, and used for the mechanical testing of tension, compression, fatigue and braking. If use the suitable fixtures, The fatigue crack propagation test, Simulating actual working condition and High and low temperature mechanical properties test can be achieved.

It is the ideal equipment in aerospace, aviation, metallurgy, transportation, research institutes and universities, and other sectors of the dynamic tests.

主要技术参数

型号		SDS500	SDS750	SDS1000	SDS2000	SDS3000
最大负荷	静态	±500	±750	±1000	±2000	±3000
	动态	500	750	1000	2000	3000
测量精度	负荷	示值的±1.0%；衰减为1、5倍				
	位移	±1.0%F.S 每档；衰减为1、5倍				
	变形	示值的±1.0%；衰减为1、5倍				
控制参数	函数发生器频率范围	0.01~10HZ 可变更；函数发生器可发正弦、三角、方波、斜波及组合波等命令波形，且可外信号输入。波形频率范围 0.01-100HZ				
	整机频率	30HZ	25HZ	20HZ	10HZ	5HZ
	闭环速率	5000HZ（更新速率）				
	油缸行程	±50（mm）			±75（mm）	±200（mm）
主机	立柱距离	820mm	820mm	1000mm	960x860mm	1200x800mm
	主机重量	3500kg	5000kg	7000kg	15000kg	30000kg
	主机高度	3000mm	3200mm	3200mm	5400mm	7000mm
	主机形式	四柱				四柱卧式
	夹头距离	50~600（mm）				
	整机功率	380v 75kw			380v 150kw	

Specification

Model		SDS50	SDS100	SDS200	SDS500	SDS750	SDS1000
Load capacity	Static	±50	±100	±200	±500	±750	±1000
	Dynamic	50	100	200	500	750	1000
Measurement precision	Load	±1.0% of the indicating value, the decaying multiple is 1 or 5					
	Displacement	±1.0%F.S /grade, the decaying multiple is 1 or 5					
	Deformation	±1.0% of the indicating value, the decaying multiple is 1 or 5					
Control parameters	Function generator(frequency range)	0.01~100HZ, later able; the function generator could generate the sine wave, triangular wave, square wave, oblique composite wave.					
	Rate of closed loop	5000HZ(updating rate)					
	Distance of hydro-cylinder	±50mm					
Mainframe	Distance between posts	500mm	565mm	700mm	820mm	820mm	1000mm
	Weight	700kg	900 kg	1500 kg	3500 kg	5000 kg	7000 kg
	Height	2000mm	2200mm	2500mm	3000mm	3200mm	3200mm
	Frame style	Double or four posts					
	Distance between grips	50~600mm					
	Power supply	380v, 22kw	380v, 30kw	380v, 37kw	380v, 75kw	380v, 75kw	380v, 75kw

7.1.3 管材动静疲劳试验机

7.1.3 Pipe static fatigue testing machine



产品简介

型号：SDS

主要用途

该套综合试验台采用双动连杆式结构设计，保证了整套试验系统的控制平稳，不仅可以完成各种轴类、杆类的动态疲劳试验、扭转疲劳试验和静态力学试验，还可以完成直线疲劳试验，完美的实现了一台多用，不但降低了设备采购的数量，节约了资金，还缩短了采购周期，节省了试验空间。

试验台技术参数：

最大静态扭矩：±6000N.m

最大动态扭矩：±5000N.m

扭矩测量精度：±1%

扭角测量精度：±0.5%F.S

力臂长度：250mm

可测试件最大长度 4500mm

工作频率范围：0.01-10Hz

加载形式：对称或非对称循环加载

试验波形：正弦波、三角波、斜波、方波、组合波、外输入波等。

Product Introduction

Model: SDS

Main application:

Can do shaft, rod specimens dynamic fatigue test, torsion test static mechanical test, also can do straight line fatigue test, implement multiple purpose perfectly.

Mainly application;

Max static torque: +/-6000N.m

Max static torque: +/-5000N.m

Torque accuracy: +/-1%

Torque accuracy: +/-0.5%F.S

Arm length: 250mm

Max work length: 4500mm

Working frequency: 0.01-10Hz

Load type: symmetry or Asymmetric cycle loading

Test wave: Sine, triangle wave, oblique wave, square wave, combine wave

7.1.4 减震器综合性能试验台

7.1.4 The shock absorber comprehensive test bench



产品简介

型号：SJD

高速减震器综合试验台主要用来完成减震器性能及耐久试验等的试验设备。该试验台由主机，控制系统，液压站及附件组成。试验线速达到 2.0m/s。

主要技术参数：

最大静态试验力：±30KN；最大动态试验力：±25KN

静态试验力测量精度：精度为示值 ±1% (2%—100% 范围内)

位移测量精度：精度为 ±1%FS

作动器行程：±100mm 试验频率：0.01—20Hz

控制波形：正弦、方波、三角波、单调波（斜波），外部输入波等。

控制器具有相位补偿功能。预留出功能扩展接口。

保护功能：低液位、超温、滤芯堵塞、过载、预置疲劳次数到、断裂等报警、停机功能。

立柱间距：500mm；垂向试验空间：1000mm

具有位移、负荷控制方式，油泵开启状态控制方式之间可以平滑切换。

Product Introduction

Model: SJD

The shock absorber comprehensive testbench is mainly used to complete the shock absorber performance endurance test other test equipment. The bench is composed by the main frame, control system

of hydraulic station accessories. Test speeds can reach 2.0 m/s.

Main technical parameters:

Maximum static force test: +/- 30 KN. The maximum dynamic test force: +/- 25 KN

Static test force measurement precision, accuracy is shown value +/- 1% (2% - 100% range)

Displacement measurement precision: the accuracy of +/- 1% FS

The actuator stroke: + 100 mm. Test frequency: 0.01-20 Hz

Control waveform: sine, square wave, triangle wave, monotonous wave (oblique wave), external input wave, etc.

The controller has the function of phase compensation. Set aside the function extension interface.

Protection function: low level, filter clogging, overload over-temperature, preset fatigue number to, fault alarm stop function.

Column spacing: 500 mm; Vertical test space: 1000 mm.

7.1.5 减震器焊口疲劳试验机

7.1.5 Shock absorber welded junction fatigue testing machine



产品简介

型号: ZJSH

主要用途:

减震器焊口疲劳试验机, 其主机主要采用作动器上置方式, 液压升降和锁紧

主要用于测试汽车减震器等零部件的焊口寿命疲劳试验。

主要技术参数:

最大静负荷 $\pm 20\text{kN}$, 动负荷 $\pm 16\text{kN}$;

试验力精度: 示值 $\pm 1\%$, (从每当满量程 20% 开始) 量程衰减 1、2、5 三档;

作动器最大位移 $\pm 50\text{mm}$ (即冲程 100mm);

位移测量精度: 为每当满量程的 $\pm 1\%$, 分 1、2、5 三档衰减;

加荷频率: 0.01~50Hz (正弦波), 可作正弦波、三角波、方波、斜波;

夹头间距: 50~600mm。

Product Introduction

Model: ZJSH

Main Application:

shock absorber welded junction fatigue testing machine adopt actuation overhead, ascend descend by hydraulic locking, mainly used to fatigue test on automobile welded junction, such like shock absorber.

Technical data:

Max static loading capacity: $\pm 20\text{kN}$, dynamic loading capacity: $\pm 16\text{kN}$

Testing force accuracy: $\pm 1\%$ of show value, measuring range decrease 1step 5 step, starts from reach 20% full rang.

Actuation max displacement $\pm 50\text{mm}$ (stroke 100mm)

Displacement accuracy: after reach 1% of full range, decrease by 1 step 5 step Loading frequency: 0.01-50HZ(sine wave), can be do with sine wave, triangular wave, square wave, oblique wave

Grips space: 50-600mm.

7.1.6 缸体疲劳试验机

7.1.6 Fatigue testing machine for cylinder body(pulser)



产品简介

型号：ZGP

主要用途：

本设备主要应用于发动机缸体缸盖疲劳试验。

功能特点

计算机软件为：Windows 平台软件，具有动态显示、自动存储、联网、输出压力—时间曲线等功能，配备激光和喷墨打印机各一台以输出数据或曲线。

安全保护：油源油温过高保护；油源油位超限保护；缸体工作压力超限保护；断电设备和试验数据保护

技术参数：

工作压力：高压试验机 4 ~ 32MPa。低压试验机 4 ~ 20MPa。

试验频次：高压试验机在 6 缸全工作，工作压力 32 MPa 时，大于 5Hz。

低压试验机在 4 缸全工作，工作压力 16MPa 时，大于 5Hz。

可调每缸试验压力及加压次序。

试验缸油压控制精度 $\pm 2\%$ 试验值。

残余压力小于试验压力的 4%。

Product Introduction

series: ZGP

The series testing machine mainly used in the engine cylinder cover fatigue test.

Uses functions: This series testing machines are mainly used for the engine cylinder cover fatigue test. The experimental object is: Explosion pressure in 4MPa-20MPa engine cylinder cover. The testing machine maximum volume is the length 1.3 meters, the width 0.8 meter, the height 1.3 meters.

Main technical parameters:

1.Working pressure: high-pressured testing machine 4-32MPa, low pressure testing machine 4-20MPa.

2.Test frequency: High-pressured testing machine when 6 cylinder entire work, working pressure 32MPa, the bigger than 5Hz; Low pressure testing machine when 4 cylinder entire work, working pressure 16MPa, the bigger than 5Hz.

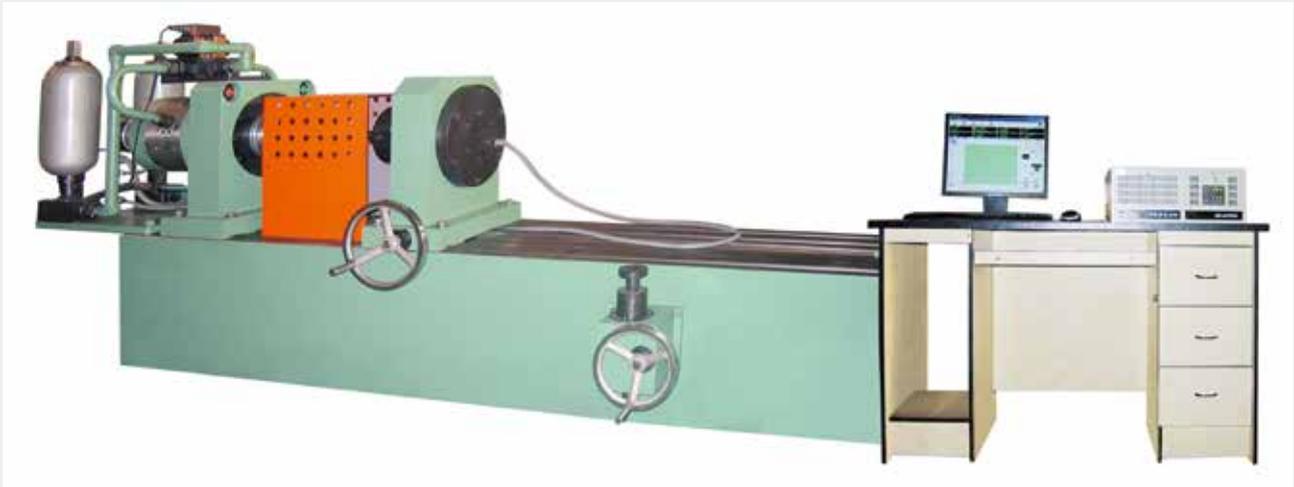
3.Testing machine oil pressure control accuracy $\pm 2\%$ experiment value.

4.Residual pressure less than 4% of test pressure.

5.Computer software: Windows platform software with dynamic display, automatic storage, networking, output pressure - time curve other functions.

7.1.7 传动轴扭转疲劳试验机

7.1.7 Electro-hydraulic servo torsion fatigue testing machine



产品简介

型号：ZSNP

主要用途：

该系列试验机可进行各种轴类、杆类的动态扭转疲劳试验

功能特点：

可实现对称循环和非对称循环等疲劳试验；在试验台最大扭矩、扭角范围内，可实现静态扭转刚性、强度试验。试验时计算机按设定的参数控制试验台自动进行，CRT（屏幕）显示扭矩值、角度值、频率、振幅、循环次数和加载波形，到达设定次数，自动停机打印试验结果报告单；在静态扭转刚性、强度试验时可显示、打印刚度值和静扭转刚性曲线，静扭转屈服扭矩和屈服扭转角度及扭转曲线图。

该系列试验机具有电机过载、试验扭矩、转角超限保护停机，油温过高，液位过底、滤清器堵塞等报警。

Product Introduction

series :ZSNP

Can achieve symmetrical and asymmetrical cycle fatigue test; on the condition of test station maximum torque and within the twist angle range, enabling static torsional rigidity and strength tests. The computer control test bench automatically according to the parameters setting. , CRT (screen) displays the torque value, angle, frequency, amplitude, cycle times and load waveform; automatically stop printing test results report when reaches the setting number; when doing the static torsional rigidity, strength test, can display, print and static stiffness curve, torsional rigidity, static torsional yielding torque and torsion angle and torsion yield curve.

The series of test machine have the function of alarming, including motor overload, test torque angle stop overrun protection, high oil temperature, liquid level over the bottom, filter blockage..

7.1.8 汽车悬架多通道协调加载试验系统（多自由度）

7.1.8 Vehicle Suspension Testing System



产品简介

型号：ZSDS-QXJ

主要用途：

汽车悬架多通道协调加载试验系统主要用于模拟汽车悬架静态、动态力学性能评价试验，包括高低周疲劳及模拟实际工况试验，也可以通过变换夹具进行不同零件的试验，例如副车架、减震元件（减震器等）、缓冲元件（螺旋弹簧等）、导向元件（控制臂、上摆臂、下摆臂等）、其他元件（转向节、轮毂轴承、驱动轴轴头、转向器、稳定杆、各标准件）等。

试验系统主要由执行单元、作动总成、加载机架、动力单元、液压泵站、控制单元、计算机伺服系统组成，根据试件的结构形式以积木形式搭建试验系统。

Product Introduction

series: ZSDS-QXJ

This system is mainly used for simulating static dynamic tests for vehicle suspension, including high-low cycle fatigue etc.

This system can act multi-load to vehicle suspension can simulate static dynamic tests for vehicle suspension, including high-low cycle fatigue simulating test under actual condition. If equipped with different grips, it also can test various parts, such as, auxiliary frame, shock-absorbing device (shock-absorber, etc), buffer device (coil spring, etc), guiding device (control arm, swing arms, etc), other devices (knuckle, hub bearing, spindle head of drive shaft, stablizer bar other stardized parts). Test system is mainly composed of execution unit, actuator assembly, load frame, power unit, hydraulic pump station, control unit, computer servo system. Test system is set up in the form of building blocks according to the structural type of work pieces.

7.1.9 汽车底盘多通道协调加载（寿命耐久）试验系统

7.1.9 Automobile chassis multiple channel coordinate loading(life durable) testing system



产品简介

型号：ZSDS-QDP

主要用途：

该设备主要用于汽车底盘及类似结构件的动态、静态或疲劳力学性能试验，包括高低周疲劳及模拟实际工况试验，也可以通过变换夹具进行不同的零件试验，包括金属、非金属及零部件进行试验。可用于拉伸、压缩、低周和高周疲劳、裂纹扩展、断裂力学以及其他各种力学实验、可用于底盘部件、前后桥、气囊支座、均衡梁等的台架疲劳寿命试验，钢板弹簧试验、减震器试验、气囊动刚度试验、橡胶衬套动刚度试验等。

主要技术参数：

垂直作动器：

垂直最大静态试验力：±200KN。

垂直最大动态试验力：±160KN

静态试验力测量精度：按 1,5 倍衰减分档标定，精度为示值 ±1（自每档 20% 起）。

动作器行程：>200mm（±100mm）。

位移测量精度：按 1.5 倍衰减分档标定，精度为 ±1FS（自每档 20% 起）

水平作动器：

水平最大静态试验力：±100KN。

水平最大动态试验力：±80KN

静态试验力测量精度：按 1,5 倍衰减分档标定，精度为示值 ±1（自每档 20% 起）。

动作器行程：>100mm（±50mm）。

位移测量精度：按 1.5 倍衰减分档标定，精度为 ±1FS（自每档 20% 起）。

Product Introduction

Model: ZSDS-QDP

Main application:

The automobile chassis multiple channel coordinate loading(life durable) testing system is mainly used for automobile chassis similar component dynamic static or fatigue mechanical performance test, including high or low frequency fatigue test simulate real working condition test, or can do different component test by changing different grip jaw, including metal, non-metal component test. Can do tensile, compression, low frequency high frequency, crack extension, fracture other mechanical test, can be used for bench life test on chassis component, back front bridge, air bag bearing, balance beam, also can do steel spring test, shock absorber test, airbag rigid test, rubber bushing rigid test. etc.

Main specification:

Vertical actuator:

Vertical max static force: +/-200kN

Vertical max dynamic force: +/-160kN

Static test measuring accuracy: step calibration according to 1,5 times damping, Accuracy is +/-% of read value

Actuator stroke: >200mm(+/-100mm)

Displacement accuracy: step calibration according to 1,5 times damping, Accuracy: +/-1FS

Horizontal actuator:

Horizontal max static test force: +/-100kN

Horizontal max dynamic test force: +/-80kN

Static force measuring accuracy: step calibration according to 1,5 times damping, Accuracy is +/-% of read value

Actuator stroke: >100mm(±50mm)

Displacement accuracy: step calibration according to 1,5 times damping.

7.1.10 石油管道深海环境模拟综合疲劳试验台

7.1.10 Petroleum Petrochemical mechanical test equipment system



产品简介

型号：SDS

主要用途：

用于模拟全尺寸海管服役过程中存在的内外部交变应力，对全尺寸输油、气、水管道进行内压及弯曲的静态和动态疲劳试验，实现单独或协调加载试验。

设备特点：

- 1、多通道独立或协调加载；
- 2、采用国际领先的数字 PID 调节控制系统；
- 3、底座采用专利技术 TPHS 结构，刚度大，长期运行不变形；
- 4、（低液压、超温、滤芯堵塞、过载等）智能保护。

主要技术参数：

加载通道数：3 个（各通道独立或协调加载）

加载管径范围：100 ~ 610mm

夹头移动范围：3-12m

频率范围：0.01 ~ 5Hz

试验管最大内压：21MPa。

Product Introduction

Model: SDS

The petroleum Petrochemical mechanical test equipment system is used to test internal outer stress when simulate full size sea pipe under working condition, do internal pressure dynamic fatigue test for full size oil pipe, gas pipe water pipe, to realize single coordinate loading test.

Character:

1. Multiple seperate or coordinate load
2. Adape internal advanced digital PID control system
3. Base adopt patent TPHS structure, high rigid, do not change form after long time runing
4. Intellect protection for low hydraulic, over temperature, filter block over loading

Main Technical specification

Loading channel: 3(sepe rate or coordinate)

Loading pipe diameter: 100-610mm

Grip move scope: 3-12m

Frequency range: 0.1-5Hz

Testing tube max inter pressure: 21MPa.

7.1.11 轨道交通转向架多通道协调加载试验系统

7.1.11 Rail transit bogie multiple-channel coordinated loading test system



产品简介

型号：ZSDS-GZJ

主要用途：

该系统主要用于对高速动车转向架进行标准的静强度力学试验和疲劳强度性能试验，并可对单体构架机轮轴装配状态的构架进行标准静态及疲劳试验，如配备必要的辅助工装，可实现度关键部件如轴箱、转臂、摇枕、弹簧等进行静强度及疲劳强度试验。

系统满足 TB/T23682005, UIC515-4, UIC615-4, JISE4207, JISE4208 标准中规定的静强度及疲劳强度试验条件。

Product Introduction

Model: ZSDS - GZJ

The main application:

The system is mainly used for high-speed train bogie for stard mechanical test fatigue strength test, static strength structure of monomer architecture machine axle assembly state stard static fatigue test, such as equipped with necessary auxiliary equipment, which can realize key components such as axle box, rocker arm, swing bolster, springs so on, carries on the static strength fatigue strength test.

System meets the TB/T23682005, UIC515-4, UIC615 4, JISE4207, JISE4208 stard stipulated in the conditions of static strength fatigue strength test.

7.1.12 轨道交通橡塑制品多通道疲劳试验台

7.1.12 Rail transit rubber plastic products multiple-channel fatigue testing bench



产品简介

型号：ZSDS-GXS

主要用途：

适用于轨道交通用轴箱弹簧、橡胶弹簧、轴箱节点、橡胶堆、中心销的多种制品的多通道加载疲劳寿命试验。可实现试验波形有：正弦波、方波、三角波、锯齿波、斜波等。

并可对金属、非金属、复合材料进行拉伸、压缩、弯曲等静态物理性能试验，同时可以做高周疲劳、低周疲劳试验。

试验项目：

轴向疲劳寿命试验、静向静刚度试验、轴向动刚度试验、径向静刚度试验、径向动刚度试验、径向疲劳试验机、扭转弹簧常数试验、三轴疲劳试验、剪切疲劳试验、扭转疲劳试验、扭转刚度试验、弯曲刚度试验、剪切试验、阻尼系数试验、滑步试验。

Product Introduction

Model: ZSDS - GXS

The main application:

Suitable for rail transit axle box, rubber springs, rubber spring, axle box node heap, center pin. a variety of products of multiple-channel loading fatigue life test. Can realize test waveforms are: sine wave, square wave, triangle wave, saw tooth wave, oblique wave, etc.

Can do static physical properties test on metal, nonmetal composite materials, such as tensile, compression, bending test, also can do high cycle fatigue low cycle fatigue test.

Test items:

Axial fatigue life test, Radial static stiffness test, Axial dynamic test, Radial static stiffness test, Radial dynamic stiffness test, Radial fatigue test, Torsion spring constant test, Triaxial fatigue test, Shear fatigue test, Torsion fatigue test, Torsion stiffness test, Bending stiffness test, Shearing test, Damping coefficient test, Slide test.

7.1.13 轨道交通弹条扣件疲劳试验机 7.1.13 Rail transit elastic strip fastening fatigue testing machine



产品简介

型号：ZSDS-GTK

主要用途：

适用于测定轨道交通用弹条扣件在规足负荷（变形）下的疲劳试验。

功能特点：

试验次数可预免设定，试验运用 P I D 控制调节器。试验次数达到预先设定值时，自动停机，试验频率由计算机设定，并具有断裂保护功能，结构紧凑，操作简单，使用方便。

完全满 TB / T2329 - 2 0 0 2 标准关于弹条 I / II / III / IV / V 型扣件弹条疲劳试验方法和弹条技术标准。

主要技术参数：

试验机最大承载能力为 20kN，在 20kN 负载运行中，主轴与承载梁的弯曲变形不大于 0.04mm

试验频率 4—16Hz

试验振幅 2.5mm 可调

安装空间 500mm。

Product Introduction

Model: ZSDS-GTK

Main application:

Used to make fatigue test when rail transit elastic strip fastening under full loading situation.

Characteristic:

Can preset test times, test adopt PID control adjuster, machine will stop automatically when test reach preset times, test frequency is settled by computer with fraction protection function, compact structure, easy can convenience operate.

Fully meet TB/T2329-2002 standard about electric strips I / II / III / IV / V type fastening fatigue test method electric strips technical standard.

Main technical data:

Max loading capacity is 20kN, main axis bearing beam bending transformation less than 0.04mm

Test frequency 4-16Hz

Test amplitude 2.5mm adjustable

Installation space: 500mm.

7.1.14 轨道交通螺旋压缩弹簧持续弹性测试试验台

7.1.14 Rail transit helical compression spring continuous elastic test rig



产品简介

型号：GTC

主要用途：

适用于机车车辆用热卷螺旋压缩弹簧的多种性能试验、测量、控制精度高、工作稳定、可靠。可实现压缩弹簧的刚度、挠度的性能试验。

功能特点：

满足铁标 TB/T025-2000 所要求的弹簧的短时间持续弹性试验；

铁标 TB/T025-2000 所要求弹簧的长时间持续弹性试验；

铁标 TB/T025-2000 所要求的弹簧的柔度试验。

Product Introduction

Model: GTC

Main application:

Used to rolling stock hot rolled helical compression spring multiple performance test, high measurement control accuracy, working stable reliable, can realize compression spring rigid deflection performance test.

Function character:

Meet TB/T025-2000 requirement about spring short time continuous spring test,

Meet TB/T025-2000 requirement about long time continuous spring test, Meet

TB/T025-2000 requirement about spring compliance test.

7.1.15 轨道交通二维空气弹簧压剪试验台

7.1.15 Rail transit two-dimensional air spring pressure shear test rig



产品简介

型号: ZDDL-GKT

主要用途:

主要用于弹性体产品(如:空气弹簧、橡胶堆等)的拉伸、压缩、剪切试验,试验机包括垂向和水平两个方向。

Product Introduction

Model: ZDDL-GKT

The rail transit two-dimensional air spring pressure shear test rig mainly be used for elastomeric products (such as air spring, rubber-metal pad) tensile, compress shear test, testing machine including vertical horizontal direction.

7.1.16 轨道交通三通道铁路钢轨电液伺服疲劳试验台 7.1.16 Rail transit three channel railway rail electro-hydraulic fatigue test bench



产品简介

型号: ZSDS-GGP

主要用途:

主要用于模拟列车通过弯道时, 在车轮随机载荷作用下钢轨的疲劳试验。可用于车辆弹簧和橡胶疲劳试验, 可用于拉压杆件的疲劳试验和三点结构试验。

Product Introduction

Model: ZSDS-GGP

Mainly used to simulate train passing conner, to do rail fatigue test while under wheel rom loading. Used to do vehicle spring rubber fatigue test, can be used for tensile compress bar fatigue three points structure test.

7.1.17 航空轴承材料衬垫高频压摆摩擦磨损试验台

7.1.17 Aviation bearing liner material high frequency pressure rotation friction wear test rig



产品简介

型号：ZSDS—HZM

主要用途：

适用于轨道交通用润滑关节轴承材衬垫双通道加载高频压摆摩擦磨损疲劳寿命试验。可实现试验波形有：正弦波、方波、三角波、锯齿波、斜波等静态物理性能试验，并对金属、非金属、复合材料进行拉伸、压缩、弯曲等静态物理性能试验，同时可以做高周和低周疲劳试验。

试验项目：

衬垫表面温度测试

衬垫压摆摩擦量

垫压压摆摩擦系数

压摆疲劳次数测试

高低温环境下疲劳相关试验项目等。

Product Introduction

Model: ZSDS—HZM

Mainly application:

It is used for rail transit lubrication bearing liner two channel loading high frequency pressure rotation friction wear fatigue life test. Can realize test wave: sine, square wave, triangle wave, zigzag wave, oblique wave etc, can do stretch, compress, bending static physical performance test on metal, non-metal, composite material, also can do high cycle low cycle fatigue test.

Test project:

Liner surface temperature test

Liner pendulum friction reduction

Cushion pressure coefficient of friction

Pressure rotation fatigue test

Fatigue test under high low temperature chamber.

7.1.18 航空轴承疲劳试验机

7.1.18 Air force bearing fatigue testing machine



产品简介

型号：ZSDS—HZP

主要用途：

该系列试验机主要用于轴承及类似的压摆疲劳性能测试

功能特点：

该机由高刚度负荷框架、高精度负荷传感器、电液伺服闭环控制系统（包括函数发生器和PID控制调节器）构成，全部操作和设置均可由系统软件的虚拟面板实现。采用两通道作动器同时协调加载，可实现，负荷、位移实时控制、并可模拟高低温、喷沙、喷水等环境试验。具有数据处理，绘图显示曲线和打印功能。

Product Introduction

Model: ZSDS—HZP

Main application:

This Air force bearing fatigue testing machine series testing system mainly are mainly used for bearing similar element products compress rotation fatigue test.

Character:

The machine was composed by high rigid loading frame, high precision load cell, electro-electric servo close-loop control system(including function generator PID control adjuster), all control setting can be realize by system software virtual panel. Adopt two channel actuator loading coordinately to realize load, displacement real time control, also can simulate high low temperature, sblast, spray water enviroment. Have data processing, draw curves print function.

7.1.19 电液伺服油缸

7.1.19 Electro-hydraulic servo cylinder



产品简介

型号：FL

设备特点：

更小的摩擦力、更卓越的动态性能、更高的可靠性、更长的使用寿命

领先的工艺水平将摩擦力小降到最小，动态性能、可靠性、使用寿命方面均达到国际先进水平

一贯的严谨性，在耐久与强度测试中表现非常卓越

更加有效的缓冲设计，使得可靠性、安全性更高

减缓缓冲设计经过反复测试，确保测试可靠性

减少密封磨损，降低维护需求

不锈钢活塞杆，防止腐蚀；优质密封原件，

最大程度减小油污泄漏。

Product Introduction

Model: FL

Less friction, more excellent dynamic function, more reliability, more lifetime Advanced technical to minimize friction, dynamic function, reliability, use life have reach world advanced level.

Consistent preciseness, perform excellent in durability strength test.

More efficient buffer design, make equipment more stable high security

Slow buffer design, can assure reliability after repeat test

Low sealing friction, low maintenance requirement

Stainless steel piston rod, prevent rust,

High quality sealing element, maximum reduce leakage

Electro-hydraulic servo cylinder specification.

主要技术参数

型号	负荷	工作压力	活塞杆直径 d(mm)	活塞直径 D(mm)	最大静态 负荷(kN)	前法兰尺寸			外形尺寸		油口尺寸				活塞杆连接尺寸		
						A	M	Z(f7)	B	H	E	F	O	O-ring	G(H7)	J	K
FL25-stroke	25kN	21Mpa	50	65	27	130	M24*2	94	178	320	200	710	12	24*2.4	26	50	M24*2
FL50-stroke	50kN	21Mpa	70	95	64	130	M24*2	94	178	413	264	90	15	24*2.4	40	50	M39*2
FL100-stroke	100kN	21Mpa	70	110	113	130	M24*2	94	178	413	264	90	15	24*2.4	40	50	M39*2
FL200-stroke	200kN	21Mpa	90	150	226	172	M30*2	110	250	418	264	90	20	30*3.1	45	50	M42*2
FL300-stroke	300kN	21Mpa	90	170	326	172	M30*2	110	250	418	264	90	20	30*3.1	50	50	M48*2
FL500-stroke	500kN	21Mpa	120	220	534	详细尺寸请咨询厂家											

Specification

Model	Load	Work Pressure	Piston rod Diameter (mm)	Piston Diameter (mm)	Max Static Load(kN)	front flange size			Outer size		hydraulic fluid port size				Piston rod connection size		
						A	M	Z(f7)	B	H	E	F	O	O-ring	G(H7)	J	K
FL25-stroke	25kN	21Mpa	50	65	27	130	M24*2	94	178	320	200	710	12	24*2.4	26	50	M24*2
FL50-stroke	50kN	21Mpa	70	95	64	130	M24*2	94	178	413	264	90	15	24*2.4	40	50	M39*2
FL100-stroke	100kN	21Mpa	70	110	113	130	M24*2	94	178	413	264	90	15	24*2.4	40	50	M39*2
FL200-stroke	200kN	21Mpa	90	150	226	172	M30*2	110	250	418	264	90	20	30*3.1	45	50	M42*2
FL300-stroke	300kN	21Mpa	90	170	326	172	M30*2	110	250	418	264	90	20	30*3.1	50	50	M48*2
FL500-stroke	500kN	21Mpa	120	220	534	Please contact us for detail size											

7.1.20 静压支撑作动器

7.1.20 Hydrostatic pressure support actuator



产品简介

型号：ML

静压支撑直线作动器：是应用静压轴承和涂层技术的新型电液伺服产品，具有寿命长、频响高、速度快等特点，是进行材料、构件、部件等力学电液伺服试验系统重要组成单元的理想选择。

既可固定到安装板上作为单一油缸进行使用，也可以最常见的方式被配置到标准（单轴）试验机中，还可在复杂的多轴多通道试验系统中使用，完成各种试验。

静压轴承密封技术：静压轴承将活塞杆置于液压缸体的中心，循环的表面油膜充盈在活塞杆和缸壁之间，使它们彼此分开而不直接接触。与其它滑动表面只在特定条件下才能产生油膜的滑动轴承（又称动压轴承）不同的是，静压轴承在完全静止的状态下也能建立起承载油膜（预先启动静压轴承系统），从而避免了摩擦损失和表面磨损。产生和维持“静压轴承”油膜所需的少量润滑油由液压缸的供油系统提供。活塞杆由高压油膜支撑，可以承受一定的侧向力，保证了伺服作动缸的高动态性和高寿命等特性。

当前标准的静压轴承液压作动器不使用机械密封圈，其轴颈内衬使用塑料涂层并配有静压轴承油泵以持续保持活塞杆和缸壁间的液态油润滑，使之可在高负荷下达成致臻完美的无摩擦力线性运动。因此，这种无粘阻现象（Stick-Slip-Effect）的特性可以在高动态下确保对试样实施

Product Introduction

Model: ML

Hydrostatic pressure support linear actuator: is a new type electro-hydraulic servo products which is used on hydrostatic bearing and coating technology, with long life, high frequency response, fast speed character, it is an idea selection for electro-hydraulic servo testing system on material, element and component.

It can be fixed on mounting plate to use as single cylinder, and can be assembled on common standard testing machine(single axil), also can be used on complicated multiple channels testing system to do varies test.

Hydrostatic pressure sealing technology: hydrostatic bearing put piston rod into center of hydraulic cylinder, cycling surface oil film full filled between piston rod and cylinder wall, to make them separate and not contact. Difference from other sliding surface only under certain circumstance can generate oil film sliding bearing(also called dynamic bearing), hydrostatic bearing also can build bearing oil under full static status(pre-start hydraulic bearing system), so to avoid fraction lost and surface friction. The small volume lubrication oil wich is to generate and maintain "hydrostatic bearing" oil film was provided by hydraulic cylinder oil supply system.

Nowadays, the standard hydrostatic pressure bearing hydraulic actuator does not use mechanical sealing ring, the shaft lining adopts plastic coating and be allocated hydrostatic pressure bearing oil pump in order to maintain liquid oil lubrication between piston rod and cylinder wall, to make it has perfect no friction linear movement under high dynamic situation. So, such stick-slipeffect character can promise enforce high sensitive axial control and linear move high precision displacement control under high dynamic situation.

高灵敏的轴向力控制以及试验所需直线运动的高精度位移控制。

产品特点主要强调：频响更高，摩擦力更小，高速运动是更安全，使用寿命更长，适用于快速动作的工况。该系列产品是双向同步油缸，即两端的工作室以及活塞杆二端都是等面积。活塞杆在静压轴承油膜中作无摩擦力的线性往复运动。内嵌的标准位移传感器（LVDT）精确测量活塞杆的移动，并提供高精度的位移控制。

我院优势：和国外产品相比，具有同样品质、同样性能，某些型号静压支撑作动器的性能甚至高于国外产品，配置也优于国外产品，我院售后服务更及时，并具有个性化产品设计的能力，定制产品，但价格仅是德国产品的三分之二。

Main character is higher frequency response, smaller friction, faster movement, more safety, longer life, suitable for high speed working situation. The series products are bi-direction synchronous cylinder, means two ends working chamber and piston rod are equal size. Piston rod does no friction linear reciprocating motion in hydrostatic pressure bearing oil film. Build in standard displacement sensor(LVDT) measure piston rod movement precisely, and provide high accuracy displacement control.

Advantages: compared with abroad products, our products has same quality, same performance, the performance of some type hydrostatic pressure support actuator even higher than abroad products, allocation also higher than abroad products, we have more efficient after sales team, and has R&D ability on personalized products, our products can be customized, and price is one third of Germany products.

主要技术参数

额定载荷 (kN)		10 至 63	100/160	250/400	630		1000	
结构尺寸		ML10 ML16 ML25 ML40 ML63	ML100 ML160	ML250 ML400	ML630	MLm630	ML1000	MLm1000
对应额定行程 S _n 的活塞位置 A _o 值 (mm)	40	479	—	—	—		—	
	100	539	605	605	705	750	705	750
	250	829	905	905	1005	1050	1005	1050
	400	—	1205	1205	1305	1350	1305	1350
B		205	275	370	470	—	550	—
C		126	224	315	370		440	
C1		—	125	190	236		300	
C2		—	28	39	50		50	
C3		125	205	280	360		430	
C4		15	54	60	79		82	
E		Φ100	Φ160	Φ224	Φ280		Φ355	
		10×M12	12×M12	12×M16	12×M20		12×M24	
E1		20	25	30	30		50	
G		Φ180	Φ250	Φ335	Φ425	—	Φ500	—
		10×Φ11	12×Φ14	12×Φ18	12×Φ22	—	12×Φ26	—
H		50	60	70	80	—	90	—
J		57	105	145,5	180		216	
(KA)K		(43)45	80	125	160		200	
L		35	20	40	40		40	
M		M24	Φ45	Φ71	Φ112		Φ112	
			8×M10	8×M16	8×M24		8×M24	
N		50	25	30	45		45	
V(活塞杆延长长度)		—	35	45	45	—	45	—
W(超程)		18	18	8	5		5	
重量 (KG)	ML-40	35	—	—	—		—	
	ML-100	38	155	295	500		740	
	ML-250	65	240	435	730		1060	
	ML-400	—	300	560	960		1380	

Specification

Rated load (kN)		10-63	100/160	250/400	630		1000	
Structure size		ML10 ML16 ML25 ML40 ML63	ML100 ML160	ML250 ML400	ML630	MLm630	ML1000	MLm1000
Corresponding to the rated strokeSn piston rod position Ao value (mm)	40	479	—	—	—		—	
	100	539	605	605	705	750	705	750
	250	829	905	905	1005	1050	1005	1050
	400	—	1205	1205	1305	1350	1305	1350
B		205	275	370	470	—	550	—
C		126	224	315	370		440	
C1		—	125	190	236		300	
C2		—	28	39	50		50	
C3		125	205	280	360		430	
C4		15	54	60	79		82	
E		Φ100	Φ160	Φ224	Φ280		Φ355	
		10×M12	12×M12	12×M16	12×M20		12×M24	
E1		20	25	30	30		50	
G		Φ180	Φ250	Φ335	Φ425		Φ500	
		10×Φ11	12×Φ14	12×Φ18	12×Φ22	—	12×Φ26	—
H		50	60	70	80	—	90	—
J		57	105	145,5	180		216	
(KA)K		(43) 45	80	125	160		200	
L		35	20	40	40		40	
M		M24	Φ45	Φ71	Φ112		Φ112	
			8×M10	8×M16	8×M24		8×M24	
N		50	25	30	45		45	
V (piston rod prolong length)		—	35	45	45	—	45	—
W (over travel)		18	18	8	5		5	
weight (KG)	ML-40	35	—	—	—		—	
	ML-100	38	155	295	500		740	
	ML-250	65	240	435	730		1060	
	ML-400	—	300	560	960		1380	

出口业绩

200 万元。

Export Performance

2,000,000 yuan.

7.2 静态试验机

7.2 Static testing machine

7.2.1 DDL 系列电子万能试验机

7.2.1 Electronic Universal Testing Machines



产品简介

型号：DDL 系列（测控部分采用德国 DOLI 公司 EDC 数字控制器）

适用于国防、航空、航天、大专院校、质检机构、材料科研等领域研发实验室进行高精力学试验。

主要用途：

主要适用于拉伸、压缩、弯曲、剪切、剥离、撕裂等力学性能试验，可求出试验最大力、抗拉强度、弯曲强度、压缩强度、弹性模量、断裂伸长率、屈服强度等参数。完全满足 GB、ISO、ASTM、EN、JIS 等标准对金属试验的要求。

该系列试验设备通过 GE S400 (CMTL) 认证实验室认证。

Product Introduction

Model: DDL Series

Electronic Universal Testing Machines is used for mechanical property testing such as stretching, compressing, curving, shearing, stripping etc. If providing corresponding accessory software, it would be used for tearing circulating. It applies to metal, plastics, rubber, electric wire, thin film, paper, packaging, spinning, spring, composite products etc.

Electronic Universal Testing Machines is comprised of mainframe, electrodriving system, data acquisition system computer software.

The software is named TestExpert.NET. The function of software includes control flow set, parameter set, testing data acquisition storage, reckoning print testing report.

DDL Series adopts EDC Series digital control system; DNS Series adopts the PSC-A control system which is developed by us.

主要技术参数

	DDL 系列	DDL5	DDL10	DDL20	DDL50	DDL100	DDL200	DDL300	DDL500	DDL600
	控制器	进口德国 DOLI 公司外置式 EDC220 控制器, 稳定可靠, 实验功能扩充方便								
实验力	最大实验力	5kN	10kN	20kN	50kN	100kN	200kN	300kN	500kN	600kN
	力值有效测量范围	负荷传感器容量 0.4%~100%								
	力测量精度	为示值的 ±0.5%								
变形	变形测量范围	在引伸计量程的 2%~100%								
	变形测量精度	为示值的 ±0.5%								
位移	横梁位移测量	分辨率高于 0.001mm								
	位移测量精度	为示值的 ±0.5%								
速度	横梁速度范围	0.01~1000mm/min 无极调速			0.005~500mm/min 无极调速, 任意设置				0.0025~250mm/min 无极调速, 任意设置	
	位移速度精度	优于 ±0.5% (空载, 检测距离大于 20mm)								
速度负荷容量		200mm/min 以下允许 最大实实验力 1000mm/min 以下允许 1/2 最大实验力		100mm/min 以下允许 最大实实验力 500mm/min 以下允许 1/2 最大 实验力	50mm/min 以下允许最大实实验力 500mm/min 以下允许 1/2 最大实验力			25mm/min 以下允许 最大实实验力 250mm/min 以下允许 1/4 最大实验力		
附件	夹具形式	标准配置为拉伸 压缩 弯曲夹具 楔形 气动 平板 盘绕 滚轮 液压 台肩等可选								
	加持范围	圆试样: Φ5~Φ12			圆: Φ8~Φ22		圆: Φ10~Φ26		圆: Φ20~Φ50	
		板试样: 0~10			板: 0~14		板: 0~16		板: 0~28	
	弯曲实验支点间距	20-140 (mm)			30-320 (mm)					
	弯曲支辊宽度	50 (mm)			80 (mm)			90 (mm)		
弯心直 (半) 径	上支点半径 R5 (mm) 下支点半径 R0.5,R2 (mm)			上支点直径 Φ10, Φ15, Φ20 (mm) 下支点直径 Φ30 (mm)				上支点直径 Φ30 (mm)		
主机	空间宽度	445mm			540mm		600mm		700mm	
	横梁行程	1200mm								
	外型尺寸 (MM)	2220×820×570			2140×1080×700		2380×1200×820		2650×1340×850	
	整机形式	落地式								
	工作环境	室温: 10℃~35℃, 湿度: 20~80%								
	主机重量 kg	300			1400		1800		2800	
	整机功率	220V, ≤800W			220V, ≤2.0KW					

备注: 可根据客户需求研发制造更大吨位电子万能试验设备

Specification

Type Specification	DDL5	DDL10	DDL20	DDL50	DDL100	DDL200	DDL300	DDL500	DDL600
Load capacity	5kN	10kN	20kN	50kN	100kN	200kN	300kN	500kN	600kN
Force Measurement accuracy	In the range of 0.4%~100% of capacity of load sensor, the measuring accuracy is better than $\pm 0.5\%$ of displayed value								
Deformation Measurement accuracy	In the 2%~100% of Extensometer Range, the measuring accuracy is better than $\pm 0.5\%$ of displayed value								
Transom displacement measurement accuracy	The resolution is higher than 0.001mm								
Transom speed range	0.01~1000mm/min nongraded rom		0.005~500mm/min nongraded rom				0.0025~250mm/min nongraded rom		
Displacement speed accuracy	Better than $\pm 0.5\%$ (non-loaded measurement distance ≥ 20 mm)								
Capacity of speed load	less than 200mm/min, the max. load is available less than 1000mm/min, 1/2 max. load is available		less than 100mm/min, the max. load are available less than 500mm/min, 1/2max. load are available		less than 50mm/min, the max. load are available less than 500mm/min, 1/4 max. load are available			less than 25mm/min, the max. load are available less than 250mm/min, 1/4max. load are available	
Width of testing space	445mm		540mm		600 mm		700mm		
Tensile grip range(mm)	Round specimen	$\phi 5\sim\phi 12$		$\phi 8\sim\phi 22$		$\phi 10\sim\phi 26$		$\phi 20\sim\phi 50$	
	Flat specimen	0-10		0-14		0-16		0-28	
Bending test-bed	Distance between two supporting points	30~140		30~320		30~320		30~320	
	width of strut	50		80		80		90	
	Diameter(radius) of flexual center	R5 (upper)/ R0.5,R2(lower)		Dia. $\phi 10, \phi 15, \phi 20$ (upper)/ $\phi 30$ (lower)			Dia. $\phi 30$ (upper lower)		
Movable Transom distance	1200mm(fixture excluded)								
Overall dimensions of Mainframe(mm) H,W,D	2220 × 850 × 570			2140 × 1080 × 700 2208 × 888 × 744		2380 × 1200 × 820		2650 × 1340 × 850	
Fixture model	One Tensile test device, one compression test device one bending test device for st;								
Power supply	AC220V 800W				AC220V< 2.0kW				
Working environment	Room temperature:10~35° C, humidity:20~80%								
Weight of Mainframe (kg)	300			1400		1800		2800	
Model of Mainframe	floor								

7.2.2 DNS 系列电子万能试验机

7.2.2 Electronic Universal Testing Machines



产品简介

型号：DNS 系列

DNS 系列电子万能试验机是我公司自行开发的新型电子万能试验机，测量系统采用我公司自主知识产权的板卡式数字控制器。

该系列试验设备通过 GE S400 (CMTL) 认证实验室认证

主要用途：

主要适用于拉伸、压缩、弯曲、剪切、剥离、撕裂等力学性能试验，可求出试验最大力、抗拉强度、弯曲强度、压缩强度、弹性模量、断裂伸长率、屈服强度等参数。完全满足 GB、ISO、

ASTM、EN、JIS 等标准对金属试验的要求。

Product Introduction

Model: DNS Series

Electronic Universal Testing Machines is used for mechanical property testing such as stretching, compressing, curving, shearing, stripping etc. If providing corresponding accessory software, it would be used for tearing circulating. It applies to metal, plastics, rubber, electric wire, thin film, paper, packaging, spinning, spring, composite products etc.

Electronic Universal Testing Machines is comprised of mainframe, electrodriving system, data acquisition system computer software.

The software is named TestExpert.NET. The function of software includes control flow set, parameter set, testing data acquisition storage, reckoning print testing report.

主要技术参数

型号	DNS 系列	DNS5	DNS10	DNS20	DNS50	NS100	DNS200	DNS300	DNS500	DNS600	
	控制器	国产 KNZ 板卡控制器，内置式，采样速率高									
实验力	最大实验力	5kN	10kN	20kN	50kN	100kN	200kN	300kN	500kN	600kN	
	力值有效测量范围	负荷传感器容量 0.4%~100%									
	力测量精度	为示值的 ±0.5%									
变形	变形测量范围	在引伸计量程的 2%~100%									
	变形测量精度	为示值的 ±0.5%									
位移	横梁位移测量	分辨率高于 0.001mm									
	位移测量精度	为示值的 ±0.5%									
速度	横梁速度范围	0.01~1000mm/min 无极调速	0.005~500mm/min 无极调速，任意设置					0.0025~250mm/min 无极调速任意设置			
	位移速度精度	优于 ±0.5% (空载，检测距离大于 20mm)									
	速度负荷容量	200mm/min 以下 允许最大实实验力 1000mm/min 以下 允许 1/2 最大实验力	100mm/min 以下 允许最大实实验力 500mm/min 以下 允许 1/2 最大实验力	50mm/min 以下允许最大实实验力 500mm/min 以下允许 1/2 最大实验力				25mm/min 以下 允许最大实实验力 250mm/min 以下 允许 1/4 最大实验力			
附件	夹具形式	标准配置为拉伸 压缩 弯曲夹具 楔形 气动 平板 盘绕 滚轮 液压 台肩等可选									
	加持范围	圆试样：Φ5~Φ12			圆：Φ8~Φ22		圆：Φ10~Φ26		圆：Φ20~Φ50		
		板试样：0~10			板：0~14		板：0~16		板：0~28		
	弯曲实验支点间距	20-140 (mm)			30-320 (mm)						
	弯曲支钳宽度	50 (mm)			80 (mm)				90 (mm)		
弯心直 (半) 径	上支点半径 R5 (mm) 下支点半径 R0.5,R2 (mm)			上支点直径 Φ10, Φ15, Φ20 (mm) 下支点直径 Φ30 (mm)				上支点直径 Φ30 (mm)			
主机	空间宽度	445mm			540mm		600mm		700mm		
	横梁行程	1200mm									
	主机外型尺寸 (MM)	2220×820×570			2140×1080×700		2380×1200×820		2650×1340×850		
	整机形式	落地式									
	工作环境	室温：10℃~35℃，湿度：20~80%									
	主机重量 kg	300			1400		1800		2800		
	整机功率	220V, ≤800W			220V, ≤2.0KW						

备注：可根据客户需求研发制造更大吨位电子万能试验设备

Specification

Type Specification	DNS5	DNS10	DNS20	DNS50	DNS100	DNS200	DNS300	DNS500	DNS600
controller	KNZ controller,built-in,Sampling rate is high								
Load capacity	5kN	10 kN	20 kN	50 kN	100 kN	200 kN	300 kN	500 kN	600 kN
Load measurement accuracy	range of capacity of load cell,		0.4%~100%						
	measuring accuracy		better than $\pm 0.5\%$						
Deformation measurement accuracy	Measuring range		in the range of 2%~100% of extensometer						
	accuracy		0.05%F · S or $\pm 0.5\%$						
Crosshead displacement measurement	The beam displacement measurement		The resolution is higher than 0.001mm						
	Displacement accuracy		$\pm 0.5\%$						
Crosshead speed range	0.01~1000mm/min stepless		0.005~500mm/min stepless				0.0025~250mm/min, stepless		
Displacement measurement accuracy	Better than $\pm 0.5\%$ (from 20mm)								
Capacity of load at speed	less than 200mm/min, the max. load is available; less than 1000mm/min, 1/2max. load is available		less than 100mm/min, the max. load is available less than 500mm/min, 1/2max. load is available	less than 50mm/min, the max. load is available less than 500mm/min, 1/4 max. load is available			less than 25mm/min, the max. load is available; less than 250mm/min, 1/4max. load is available		
Grips	One Tensile test device, one compression test device one bending test device for st;								
Range	$\Phi 5-12$		$\Phi 8-22$	$\Phi 10-26$		$\Phi 20-50$			
distance	20-140mm		30-320mm						
width	50mm		80mm			90mm			
diameter	Up R5mm down R0.5 R2 mm		Up $\Phi 10$, $\Phi 15$, $\Phi 20$ mm down $\Phi 30$ mm			Up $\Phi 30$			
Width of test space	445mm		540mm	600 mm		700mm			
Travel of mobile crosshead	1200mm								
Overall dimensions of frame(mm) H.W.D	2220 × 850 × 570			2140 × 1080 × 700		2380 × 1200 × 820		2650 × 1340 × 850	
Power supply	AC220V, $\leq 600W$			AC220V, $\leq 2.0KW$					
Working environment	Room temperature, 10° C~35° C, humidity, 20~80%								
Frame weight (kg)	300			1400	1800		2800		
Type of machine	Floor type								
Power supply	220V, $\leq 800W$			220V, $\leq 2.0KW$					

7.2.3 大吨位电子式试验机

7.2.3 Large capacity electric testing machine



产品简介

大吨位电子式试验机 1500kN

- 采用伺服电机进行加载，噪音小、无过冲现象
- 采用TPHS (Thick plate High stiffness) 重型框架结构设计，确保高刚度变形小，重复试验结果误差小。

试验空间大，方便试样夹持

- 传动、减速均采用齿形带配丝杆副结构，效率更高，更平稳，噪音小

● 配置长春机械院最新研制的 CLY20 型电子万能试验机专用高精度负荷传感器（曾荣获国家科技进步 2 等奖），传感器刚度大、独有的非线性数据校正技术，确保长时工作稳定可靠性

- 系统采用三闭环控制，无冲击平滑转换，技术运用更成熟

- 自动、手动切换操作；面板、电脑双重控制

Product Introduction

Large capacity electric testing machine 1500kN

Model: DDL Series

Loading system adopts servo motor, low noise, no over-loading

Adopts TPHS(Thick Plate High Stiffness) heavy type frame structure design, ensure high stiffness,

low error on repeate test, big test space, easy clamping

Transmission, speed reduce adopt tooth shape belt with ball screw structure, higher efficiency, more stable, less noice

System adopts 3 closed loop control, no impact smooth transition,

Can be operated manually automatically, controlled by panel computer

7.2.4 四立柱油缸上至式电液伺服液压万能试验机

7.2.4 Four columns oil cylinder ontop type hydraulic universal testing machine



产品简介

型号：YDL、YNS 系列

该系列试验设备通过 GE S400 (CMTL) 认证实验室认证

主要用途

1、采用单空间，油缸上置的结构形式，所有试验都在同一空间里完成。

2、产品试验力范围广，从 300kN-2000kN，满足不同需求。

3、布局合理同轴度高，无附加阻力作用在传感器上面，结果更加准确。

Product Introduction

Model: YDL series, YNS series

The series equipment pass GE S400(CMTL Certification laboratory) Certification

Application:

1. Single space, oil cylinder ontop structure

2. Large test capacity 300kN-2000kN

3. High coaxial.

主要技术参数

型号	YDL/YNS 系列	YDL/YNS300	YDL/YNS600	YDL/YNS1000	YDL/YNS2000
试验力	最大试验力 kN	300	600	1000	2000
	力测量精度	在最大实验力 2%~100%范围内, 精度为示值的±0.5%, ±1%两种			
	试验机测量范围	1%~100%FS (全程不分档)			
变形	变形测量范围	1%~100%FS			
	变形测量精度	在引伸计量程的 2%~100%, 为示值的±0.5%			
位移	活塞行程 (mm)	350	560	650	780
速度	活塞上移最大速度	160mm/min	190mm/min	180mm/min	90mm/min
	活塞下移最大速度	160mm/min	240mm/min	290mm/min	100mm/min
	试验力加载速率范围	0.02~2%FS/s			
空间	立柱数	2	4		
	立柱有效距离 (mm)	500	600x350	660x400	800x450
	拉伸钳口最大距离 (mm)	550	580	700	
	最大压缩空间 (mm)	440	450	550	580
夹持范围	圆试样夹持范围 (mm)	φ 10-φ 20 φ 20-φ 32	φ 10-φ 18 φ 18-φ 29 φ 29-φ 40	φ 15-φ 30 φ 30-φ 45 φ 45-φ 55	φ 15-φ 30 φ 30-φ 55 φ 55-φ 70
	板试样夹持厚度 (mm)	2-13;13-25	2-16;16-30	2-20;20-40	10-40;40-70
主机	压板尺寸 (mm)	φ 120	φ 150	200x200	φ 200
	外形尺寸 (mm)	830x660x2250	750x550x2800	850x670x3300	1255x900x4200
	总功率 kw	4.5	8		
	重量 kg	约 1500	约 3500	约 6500	约 10000

Specification

Type	YDL/YNS series	YDL/YNS300	YDL/YNS600	YDL/YNS1000	YDL/YNS2000
Test force	Max force kN	300	600	1000	2000
	Force accuracy	Accuracy +/-0.5%, +/-1% within 2% ~ 100% of full range			
	Measuring range	1% ~ 100%FS (stepless)			
deformation	Measuring range	1% ~ 100%FS			
	Measuring accuracy	+/-0.5% within 2% ~ 100% for extensometer			
Displacement	Piston stroke (mm)	350	560	650	780
Speed	Move up max speed	160mm/min	190mm/min	180mm/min	90mm/min
	Move down max speed	160mm/min	240mm/min	290mm/min	100mm/min
	Force loading speed range	0.02 ~ 2%FS/s			
Space	columns	2	4		
	Columns effective distance (mm)	500	600x350	660x400	800x450
	Tensile jaw max distance (mm)	550	580	700	
	Max compression space (mm)	440	450	550	580
Clamp range	Round sample clamping range (mm)	ϕ 10- ϕ 20 ϕ 20- ϕ 32	ϕ 10- ϕ 18 ϕ 18- ϕ 29 ϕ 29- ϕ 40	ϕ 15- ϕ 30 ϕ 30- ϕ 45 ϕ 45- ϕ 55	ϕ 15- ϕ 30 ϕ 30- ϕ 55 ϕ 55- ϕ 70
	Plate sample clamping range (mm)	2-13;13-25	2-16;16-30	2-20;20-40	10-40;40-70
Main frame	Compression pad (mm)	ϕ 120	ϕ 150	200x200	ϕ 200
	Outer size (mm)	830x660x2250	750x550x2800	850x670x3300	1255x900x4200
	Power kw	4.5	8		
	Weight kg	about 1500	about 3500	about 6500	about 10000

7.2.5 YNS 系列电液伺服液压万能试验机 7.2.5 Electro-hydraulic servo universal machine



产品简介

型号：YNS 系列（测控部分采用我院自主研发的KNZ板卡式控制器）

该系列试验设备通过 GE S400(CMTL) 认证实验室认证

主要用途：

主要适合于金属棒材、板材、螺纹钢、钢绞线等需要大加载力的拉伸、压缩、弯曲、剪切、剥离、撕裂等材料力学试验。是工厂、学校和科研单位理想的实验设备，该机设计完全满足国标 GB/T228-2002《金属材料 室温拉伸试验方法》和 GB/T7314《金属材料室温压缩方法》的要求，完全满足 GB、ISO、ASTM、EN、JIS 等标准对试验的要求。

Product Introduction

Suitable for various tests, such as tensile, compression, bending, etc. for metal, non-metal compound materials

The Electro-hydraulic servo universal machine uses the stress of hydraulic oil to stretch, compress, curve, shear the metal plastics, non-metal plastics composite. The testing machine has the advantage of stable reliable, high precision durable use, specially, it is fit for the large loading testing.

The YNS Series testing machines match the KNZ controller which is designed manufactured by our own company.

Functions & features:

1. Equipped with the controller designed manufactured by our company.
2. Use widely. This series machines are suitable for various tests, such as, tensile, compression, bending etc. for metal, non-metal compound materials.
3. The frame is elegant in appearance, the hydraulic grip is operated with button clamped automatically.
4. High precision displacement measuring steady reliable running.
5. Measuring resolution is up to ± 320000 codes.
6. Displacement speed can be set freely, can also be set to strain-stress control system.
7. Adopt three close-loop control technology that can realize close-loop control for load, deformation displacement, control modes can be switched smoothly.
8. Has many protection functions, such as, load limit, displacement limit, deformation limit, automatic shutdown when specimen ruptures, early warning when extensometer taken off, etc.
9. Test curves of load-deformation, load-displacement, stress-strain, etc can be plotted. Functions of amplification reduction of partial curves curves superposition etc. can be realized.

主要技术参数

规格型号	YNS300	YNS500	YNS600	YNS1000	YNS2000
最大实验力	300 KN	500 KN	600 KN	1000 KN	2000 KN
力测量精度	在最大实验力 2%~100%范围内, 精度为示值的±0.5%, ±1%两种				
变形测量精度	在引伸计量程的 2%~100%, 为示值的±0.5%				
活塞行程 (mm)	150	200			
位移测量精度	±0.5%				
速度精度	±0.5%				
圆试样	Φ 10~Φ32	Φ 13~Φ40		Φ10~Φ60	Φ20~Φ70
板试样	0~15	0~30		0~40	15~50
下支点跨距	30-300 (mm)			50-300 (mm)	
弯曲支辊宽度	140 (mm)			160 (mm)	
两支柱间距	430mm	470mm		550mm	640mm
拉伸夹头最大间距 (包括活塞行程)	650mm	700mm		700mm	750mm
主机外型尺寸 (MM) H.W.D	2150×850×580	2280×800×580		2550×1200×710	3000×1220×828
上下压板最大间距	500mm				560mm
液压源尺寸 (mm)	970×700×850				
主机重量 kg	1200	1700	1700	3300	6800
整机功率	主机 220V, 油源 380V, ≤4.5kW			主机 220V, 油源 380V, ≤5kW	

Specification

Model Specification		YNS300	YNS500/YNS600	YNS1000	YNS2000
Load capacity(kN)		300	500 / 600	1000	2000
Load measurement accuracy		±1%			
Measurement range		2%~100% of max. force			
Piston stroke (mm)		150	200		
Deformation measurement accuracy		±0.5 of indicating value, within 2%~100% of full scale of extensometer			
Displacement measurement accuracy		±0.5%			
Speed accuracy		±0.5%			
Clamping range(mm)	Cylindrical specimen	Φ10-Φ32	Φ13-Φ40	Φ10-Φ60	Φ20-Φ70
	Plate specimen	0-15	0-30	0-40	15-50
Bending test-bed	Distance between two supports (mm)	30-300		50-300	
	Max. width of specimen (mm)	140		160	
Distance between two columns(mm)		430	470	550	640
Max. distance between grips (mm)(inc. piston stroke)		650	700	700	750
Max. distance between upper lower compression plate (mm)		500			560
Dimensions(mm)H.W.D	Mainframe	2150×850×580	2280×890×580	2550×1200×710	3000×1220×828
	Hydraulic source	970×700×850			

7.2.6 YDL 系列电液伺服万能试验机

7.2.6 Electro-hydraulic servo universal machine



产品简介

型号：YDL 系列（测控部分采用德国 DOLI 公司 EDC 数字控制器）

该系列试验设备通过 GE S400(CMTL) 认证实验室认证

主要用途：

主要适合于金属棒材、板材、螺纹钢、钢绞线等需要大加载力的拉伸、压缩、弯曲、剪切、剥离、撕裂等材料力学试验。是工厂、学校和科研单位理想的实验设备，该机设计完全满足国标 GB/T228-2002《金属材料 室温拉伸试验方法》和 GB/T7314《金属材料室温压缩方法》的要求，完全满足 GB、ISO、ASTM、EN、JIS 等标准对试验的要求。

Product Introduction

Model: YDL series

The YDL Series testing machines match the EDC220 controller which is designed manufactured by DOLI company(Germany).

The Electro-hydraulic servo universal machine uses the stress of hydraulic oil to stretch, compress, curve, shear the metal plastics, non-metal plastics composite. The testing machine has the advantage of stable reliable, high precision durable use, specially, it is fit for the large loading testing.

The YDL Series testing machines match the EDC220 controller which is designed manufactured by DOLI company(Germany).

Characteristics:

Has wide application, the machine is suitable to test such as tension, compression, bending for metal, non-metal compound materials with the suitable grips.

The hydraulic fixture is operated by keying chucked automatically.

Displacement measurement device is designed specially to ensure stable reliable running high precision

Measurement resolution is more than ± 320000 codes.

Displacement speed could be set discretionarily, also the stress strain controlling system could be constitute.

The measurement control system could achieve all operation by computer controlling system with the advantage of fast response, strong timing, stable reliable.

The servo valve is imported, having the advantage of high precision fast response.

The oil source of hydraulic pump is imported, having the advantage of stable reliable running, low noise.

The matching software is based on Windows, it could collect show testing data in a real time, draw testing curve.

主要技术参数

	规格型号	YDL300	YDL500	YDL600	YDL1000	YDL2000
实验力	最大实验力	300 KN	500 KN	600 KN	1000 KN	2000 KN
	力测量精度	在最大实验力 2%~100%范围内, 精度为示值的±0.5%, ±1%两种				
变形	变形测量精度	在引伸计量程的 2%~100%, 为示值的±0.5%				
位移	活塞行程 (mm)	150	200			
	位移测量精度	±0.5%				
速度	速度精度	±0.5%				
夹持范围	圆试样	Φ 10~Φ32	Φ 13~Φ40		Φ10~Φ60	Φ20~Φ70
	板试样	0~15	0~30		0~40	15~50
弯曲实验台	下支点跨距	30-300 (mm)			50-300 (mm)	
	弯曲支辊宽度	140 (mm)			160 (mm)	
主机	两支柱间距	430mm	470mm		550mm	640mm
	拉伸夹头最大间距 (包括活塞行程)	650mm	700mm		700mm	750mm
	主机外型尺寸 (MM) H.W.D	2150×850×580	2280×800×580		2550×1200×710	3000×1220×828
	上下压板最大间距	500mm				560mm
	液压源尺寸 (mm)	970×700×850				
	主机重量 kg	1200	1700	1700	3300	6800
	整机功率	主机 220V, 油源 380V, ≤4.5kW			主机 220V, 油源 380V, ≤5kW	

Specification

	Model	YDL300	YDL500	YDL600	YDL1000	YDL2000
Load	Max loading	300kN	500kN	600kN	1000kN	2000kN
	Loading measurement precision	In the 2%~100% of the max loading, the precision is $\pm 0.5\%$, ± 1 indicating value				
Deformation	Deformation measurement precision	In the 2%~100% of extensometer measurement range, the precision is $\pm 0.5\%$ of indicating value				
Displacement	Distance of plunger	150mm	200mm			
	Displacement measurement precision	$\pm 0.5\%$				
Ratio	Ratio precision	$\pm 0.5\%$				
Range of champing	Circle sample	$\phi 13\sim\phi 40\text{mm}$	$\phi 10\sim\phi 32\text{mm}$		$\phi 10\sim\phi 60\text{mm}$	$\phi 20\sim\phi 70\text{mm}$
	Slab sample	0~15mm	0~30mm		0~40mm	15~50mm
Bendingtest-bed	Distance between points	30~300mm			50~300mm	
	Width of the curve roller	140mm			160mm	
Mainframe	Distance between braces	430mm	470mm		550mm	640mm
	Max distance between stretch chucks(including plunger displacement)	650mm	700mm		700mm	750mm
	Max distance between press plate	500mm	500mm		500mm	560mm
	Dimension of mainframe	2150x850x580mm	2280x890x580mm		2550x1200x710mm	3000x1220x828mm
	Dimension of hydraulic source	970x700x850mm				
	Power supply	Mainframe: 220v; Oil source: 380v, $\leq 4.5\text{kW}$			Mainframe: 220v; Oil source: 380v, $\leq 5\text{kW}$	

7.2.7 RDL 系列电子蠕变持久试验机

7.2.7 Electronic creep relaxation testing machines



产品简介

型号：RDL 系列（测控部分采用德国 DOLI 公司 EDC 控制器）

该系列试验设备通过 GE S400(CMTL) 认证实验室认证

主要用途：

主要用于金属和非金属材料的拉伸、压缩持久、蠕变、松弛试验以及低周疲劳和蠕变疲劳等试验。

Product Introduction

Model: RDL series

It adopts digital controller software which was made in DOLI company(Germany)

We have been researching developing creep testing machines for more than 30 years won lots of awards.

Functions features:

RDL series electronic creep relaxation testing machines adopt digital controller software made in DOLI company(Germany), the measurement control system is composed of measurement unit which developed specially by DOLI,the EDC controller,applicant software. The EDC controller is joined with PC by 232 interface to realize the computer control. Compare with other series creep testing machines, it has advantages of precision higher, performance better, software more convenient. The mainframe adopt the loading structure of double column gate.

It uses the temperature controller with the 0.1 precision to control the temperature, EDC222 could communicate to the temperature controller, control it , the whole testing process would not be disturbed by anyone.

The information of temperature overrun time etc, could be sent to the administrator by the way of SMS.

The testing machines could match various environment testing device.

主要技术参数

RDL 系列	RDL10	RDL20	RDL30	RDL50	RDL100	RDL200	RDL500
控制器	进口德国 DOLI 公司外置式 EDC222 控制器, 稳定可靠, 实验功能扩充方便						
最大实验力	10 kN	20 kN	30 kN	50 kN	100 kN	200 kN	500 kN
力控制稳定性	±0.5%,						
示值相对误差	在满量程的 0.4%~100%范围内, 测量误差为示值的 ±0.5%,						
变形测量范围	10mm						
变形测量误差	±0.5%;或 0.003mm(配差动变压器) 或 (光栅传感器全程不大于 2 μm)						
拉杆速度	0.01-50mm/min						
拉杆最大行程	180mm						
外型尺寸 (mm)	2100×710×540		2220×710×540		2390×730×540	3200×950×740	
重量	300		500		600	1200	
整机功率	主机 220V, ≤500W, 大气炉 380V, ≤3KW,				主机 220V, ≤1KW, 大气炉 380V, ≤3KW,		

Specification

Model	RDL10	RDL20	RDL30	RDL50	RDL100	RDL200	RDL500
Load capacity	10kN	20 kN	30 kN	50 kN	100 kN	200 kN	500 kN
Load measurement accuracy	±0.5% of indicating value(within the range of 1% ~ 100% of the full scale).						
Stability of load control	±0.5%						
Deformation measurement range	10mm						
Deformation measurement accuracy	±0.5%, or ±0.003mm(equipped with LVDT or grating sensor)						
Max. travel of pull rod	180mm						
Rate of pull rod	0.01—50mm/min						
Outline dimensions (mm)	2100x710x540		2200x710x540		2390x730x540	3200x950x740	
Weight (kg)	300		500		600	1200	
Power supply	Mainframe, 220V, ≤500W; Furnace, 380V, ≤3KW				Mainframe, 220V, ≤1000W; Furnace, 380V, ≤3KW		

7.2.8 RWS 系列电子持久蠕变试验机 7.2.8 Creep Relaxation Durability Testing machines



产品简介

型号：RWS 系列（测控部分采用我院最新研发的 TMC-10 系列控制器）

该系列试验设备通过 GE S400(CMTL) 认证实验室认证

主要用途

主要用于金属和非金属材料的拉伸、压缩持久、蠕变、松弛试验以及低周疲劳和蠕变疲劳等试验。

Product Introduction

Model: RWS series

This series of test equipment is approved by GE S400 (CMTL) Certification Laboratory Accreditation

The main function

Mainly used for metal and nonmetal materials tensile, compression lasting, creep and relaxation tests low cycle fatigue and creep-fatigue tests.

7.2.9 杠杆式高温持久蠕变试验机

7.2.9 Lever weight type Creep Durability Testing Machines



产品简介

型号：RDJ 系列

该系列试验设备通过 GE S400 (CMTL) 认证实验室认证

主要用途

主要用于金属和非金属材料的拉伸、压缩持久、蠕变、松弛试验以及低周疲劳和蠕变疲劳等试验。

TPHS 框架组合结构

主机采用四立柱式 TPHS 框架组合结构

双电机结构：除了电动加载系统外，下拉杆拖动采用变频电机配滚珠丝杆，保证高精度控制。刀刃刀承结构，杠杆的各支点处均采用刀刃刀承结构，保证了整机的高灵敏度。

最先进的控制、测量技术

PLC 控制核心；主机操作、调平系统、加载系统均以 PLC 为核心，可靠性高。

自动调平：采用双光纤光电开关控制方式进行自动调平，提高了控制精度。

容错技术：杠杆调平采用容错技术，双光纤传感器控制，精确地调节杠杆水平。

数字测量技术：变形测量采用高精度数字测量技术，采集变形数据，精度高、无干扰、防止长时变形漂移。

高度自动化：设备可以根据设定参数自动进行加热、保温、加载、数据记录、降温卸载等工作。可选配备 UPS 电源，避免非正常断电停机而引起的对试样以及机器可能造成的损坏。

高精度温控器：采用 0.1 级高精度温控器，人工智能控制，精度高，性能稳定可靠。

Product Introduction

Model: RDJ series

This series of test equipment is approved by GE S400 (CMTL) Certification Laboratory Accreditation

The main purpose

Mainly used for metal and nonmetal materials tensile, compression lasting, creep and relaxation tests low cycle fatigue and creep-fatigue tests.

TPHS frame composite structure

Host a four-column type TPHS frame composite structure

Dual-motor structure: In addition to the electric load system, dragging down the rod using FM motor with ball screw, ensure high accuracy control

System. Blade knife bearing structure, the fulcrum of the lever blade knife bearing structures are used to ensure that the high sensitivity of the machine.

The most advanced control, measurement techniques

PLC control core; host OS, leveling system, loading system are PLC as the core, and high reliability.

Automatic Leveling: dual fiber optic switch for automatic leveling control, improve the control accuracy.

Fault-tolerant technology: Leverage leveling fault-tolerant technology, dual fiber optic sensor control, precisely adjust the level of leverage.

Digital measurement technology: deformation measurement using highprecision digital measurement technology, data acquisition deformation, high precision, without interference, to prevent deformation of the long drift.

Highly automated; device can be automatically set according to the parameters heating, thermal insulation, load, data recording, cooling unloading work. Optional with UPS, avoid non-normal power failure shutdown caused damage to the sample, and the machine may cause.

High-precision temperature control; 0.1 using high-precision temperature control, artificial intelligence control, high precision, stable and reliable performance.

主要技术参数

型号	RDJ30	RDJ50	RDJ100
最大实验力	30kN	50kN	100kN
测量范围	0.5kN-30 kN	0.5kN-50 kN	1kN-100 kN
准确度等级	0.5 级/1 级		
示值相对误差	在测量范围内，测量误差为示值的 $\pm 0.5\%$ ，		
最小加载量	1N		
杠杆比	1 : 40	1 : 50	1 : 100
杠杆级数	1 级		2 级
杠杆偏移量	$\pm 0.1\text{mm}$ (自动调平范围)		
下拉杆行程	不小于 150mm		
下拉杆移动速度	2.5 ~ 50mm/min		
上下夹头偏心率	$\leq 10\%$		
试样规格	符合 GB/T2039-1997 HB5150-1996 HB5151-1996 的规定		
整机功率	主机 220V，油源 380V， $\leq 4.5\text{kW}$		主机 220V，油源 380V， $\leq 5\text{kW}$

Specification

type	RDJ30	RDJ 50	RDJ 100	RDJ 500
Load capacity	30kN	50kN	100kN	500kN
Load measurement range	0.5 kN-30kN	0.5 kN-50kN	1kN-100kN	5 kN-500kN
Relative error of load value	$\leq \pm 0.5\%$			
Upper lower collet eccentricity	$\leq 10\%$			
Sample Specification	Accord GB/T2039-1997 HB5150-1996 HB5151-1996 criterion			
Minimum load capacity	1N			
Lever ratio	1:40	1:50		
Lever series	1 level			
Lever offset	$\pm 0.1\text{mm}$			
Lower pull rod travel	$\geq 150\text{mm}$			
Lower pull rod move speed	2.550mm/min			
Leveling, loading the structure of dual-motor drive	Total power $\leq 600\text{W}$			
High-precision lever leveling technology	Dual-fiber sensor control structure			
PLC control core	Japan Programmable Controller OMRON			
RS485 bus architecture	Each testing machine the host computer through the RS485 composed of DCS system			

7.2.10 持久蠕变疲劳试验机

7.2.10 High temperature creep fatigue testing machines



产品简介

型号: RPL 系列

主要用途

该系列试验机功能更加强大，除了具备基本的蠕变、松弛、持久试验功能外，还能进行拉压过零、低周疲劳试验、蠕变疲劳试验。

功能特点:

- ◆ 动态试验过程为拉拉或拉压式，可过零无间隙
- ◆ 根据用户需要可配置静态和动态两套试验系统（包括拉杆、夹具、引伸计、高温炉），可分列完成，由专门的控制器进行全自动操控
- ◆ 普通高温环境下拉伸持久试验，蠕变试验、松弛试验、低周疲劳试验和蠕变疲劳试验，及拉压低周疲劳和蠕变疲劳试验。

Product Introduction

Model: RPL series

This series testing machines has the larger function, it could not only creep, relaxation, durability

The series testing machines has the larger function, it could not only creep, relaxation, durability, but also could achieve the pass zero pull push, low frequency fatigue creep fatigue.

FUNCTION:

- The dynamic testing process is pull pull or pull push, could pass zero, has not interval;
- The machines could configure two sets testing system(including pull rod, fixture, Extensometer, high temperature stove), they could complete dividually, be controlled automatic by the special controller.
- In the usual high temperature environment, the machines could conduct the stretch durability testing, creep testing, relaxation testing, low frequency fatigue testing creep fatigue testing, as well the pull push low frequency fatigue testing creep fatigue testing.

主要技术参数

型 号		RPL10	RPL20	RPL30	RPL50
实验力	最大加载能力	10kN	20kN	30kN	50kN
	量程	满量程的 1%~100%			
	测量误差	在满量程的 0.4~100%范围内, 测量误差为示值的±0.5%,			
	控制稳定性	示值的 0.5%,			
水平变形	测量范围	±5mm(变形测量方式采用差动变压器)			
	测量误差	在满量程的 4~100%范围内, 测量误差为示值的±0.5%,			
垂直轴控制参数	拉杆速度	0.01-50mm/min			
	拉杆最大行程	180mm			
	动态试验频率	不大于 0.5Hz,波形为三角波、梯形波、余弦波			
主机	整机功率	主机 220V, ≤600W, 双大气炉 380V, ≤6KW			

Specification

Model		RPL10	RPL20	RPL30	RPL50
Test loading	Max loading	10kN	20kN	30kN	50kN
	Measurement range	1%~100% of measurement range			
	Measurement error of loading	1%~100% of measurement range, the measurement error is 0.5% of showing value			
	Control stability of loading	0.5%			
deformation	measurement range	±5mm(the deformation measurement mode adopt differential transformer)			
	measurement error	4%~100% of measurement range, the measurement error is ±0.5% of showing value			
Control parameters	Ratio of pull rod	0.01~50mm/min			
	Max distance of pull rod	180mm			
	Dynamic testing frequency	≤0.5Hz, wave form: triangular wave, trapezoidal wave, cosine wave			
Mainframe	Power	Mainframe: 220V, ≤600W, double stove: 380V, ≤6KW			

7.2.11 多头高温电子松弛蠕变试验机

7.2.11 Multi-thread electronic creep relaxation durability testing machine



产品简介

型号：ZRDL-D 系列

主要用途

多头电子蠕变持久试验机主要用于非金属材料在定的温度下进行压缩蠕变，松弛试验。

功能特点：

◆ 主机有三套独立加载系统，配一个高温试验箱或三个高温大气炉，三个试样在试验箱内可同时进行不同的试验，主机三套独立加载系统由一台计算机控制。

◆ 选配相应的单元及软件，可以进行蠕变试验、松弛试验。

低周疲劳试验、蠕变疲劳试验

◆ 连续工作时间：大于 500 小时。

Product Introduction

Model: ZRDL-D series

It is mainly used for non-metal to compress creep test , relaxation test in the definite temperature The multipoint electronic creep relaxation testing machines is mainly used for non-metal to compress creep test , relaxation test in the definite temperature.

Function:

- The mainframe include three sets independent loading system, matching one high temperature test chamber or three high temperature stoves. The three test sample could proceed different test at the same time, the three sets loading system are controlled by one computer.

- If matching the fit unit software, the machine could proceed creep test, relaxation test, low frequency fatigue test creep fatigue test.

- The last working time: more than 500 hours.

主要技术参数

型 号		ZRDL-D10	ZRDL-D30	ZRDL-D50	ZRDL-D100
实验力	最大加载能力	10kN	30kN	50kN	100kN
	控制稳定性	示值的 0.5%			
	测量误差	在满量程的 0.4%~100%范围内, 测量误差为示值的±0.5%,			
变形	变形测量范围	10mm(变形测量方式采用数字式光栅)			
	变形测量误差	±0.002mm			
主机	头数	3 头			
	拉杆速度	0.01-50mm/min			
	拉杆最大行程	200mm			
	整机功率	主机 220V, ≤1kW, 高低温箱 380V, ≤2.5kW			

Specification

Model		ZRDL-D10	ZRDL-D30	ZRDL-D50	ZRDL-D100
Load	Max. load	10KN	30KN	50KN	100KN
	Control stability	0.5% of showing value			
	Measurement error	0.4%~100% of measurement range, the measurement error is 0.5% of showing value			
Deformation	Deformation measurement range	10mm(digital grating deformation measurement way)			
	Deformation measurement error	±0.002mm			
Mainframe	Point number	3 points			
	Rate of pull rod	0.01~50mm/min			
	Max distance of pull rod	200mm			
	Power supply	Mainframe:220V,≤1kW High low temperature chamber:380V,≤2.5kW			

7.2.12 双向拉伸蠕变试验机

7.2.12 Both ways stretch creep testing machines



产品简介

型号: ZRDL-T 系列

主要用途

该系列试验机主要用于测试胶接材料在水卫与垂直两个方向上同时受力情况下的持久蠕变试验。

Product Introduction

Model: ZRDL-T series

The series testing machine is mainly used for testing the same stress state on horizontal vertical of cementing material

The series testing machine is mainly used for test the same stress state on the horizontal vertical of cementing material.

主要技术参数

型 号	ZRDL-T2	
实验力	最大垂直轴加载能力	2KN
	最大水平轴加载能力	500N
	量程	1%~100%
	测量误差	在满量程的 0.4~100%范围内, 测量误差为示值的±0.5%。
	控制稳定性	示值的 0.5%。
水平变形	测量范围	5mm(变形测量方式采用差动变压器)
	测量误差	在满量程的 1~100%范围内, 测量误差为示值的±0.5%。
垂直轴控制参数	拉杆速度	0.1-50mm/min
	拉杆最大行程	200mm
主机	整机功率	主机 220V, 油源 380V, ≤600W; 环境箱 380 V, ≤2kW

Specification

Model	ZRDL-T2	
Load	Max vertical load	2kN
	Max horizontal load	500N
	measurement range	1%~100%
	Measurement error	In the range of 1%~100% F.S, the measurement error is 0.5% of showing value
	Control stability	0.5% of showing value
Horizontal deformation	Measurement range	5mm(differential transformer)
	Measurement error	In the range of 4%~100% F.S, the measurement error is±0.5% of showing value
Vertical control parameters	Rate of pull rod	0.01~50mm/min
	Max. displacement of pull rod	200mm
Mainframe	Power	mainframe: 220V 1.0kW environment chamber: 380V, ≤2kW

7.2.13 电子弯曲蠕变试验机

7.2.13 Electronic curve creep testing machines



产品简介

型号: ZRDL-W 系列

主要用途:

弯曲蠕变试验机主要用于玻璃钢在各种温度环境下进行弯曲蠕变试验, 是我公司自主开发生产的新型电子蠕变试验机。根据 GB/T1456-2005《夹层结构弯曲性能试验方法》做外伸梁三点弯曲试验, 跨中加集中载荷, 在跨中和左右两外伸点上安装三只位移传感器, 测出跨中和左右两外伸点的挠度, 以便计算出玻璃钢的弯曲刚度和剪切刚度。

Product Introduction

Model: ZRDL-W series

It is mainly used for glass fiber reinforced plastics to proceed curve creep test in various temperature. The curve creep testing machines is mainly used for glass fiber reinforced plastics to proceed curve creep test in various temperature, it is the new electronic creep testing machines which is developed by us. According to GB / T1456-2005 "sandwich bending performance test method" to do outside the three-point bending test beams stretch across Canada concentrated load, displacement sensor is installed in the three-span and extended about two points, measure the span and about two outrigger deflection points. In order to calculate the bending stiffness and shear stiffness of FRP.

主要技术参数

型 号	ZRDL-W10	
实验力	最大实验力	10kN
	实验力测量范围	0.1-10kN
位移	位移测量范围	0~30mm
	位移测量精度	0.005mm
控制参数	压杆行程	120mm
	压杆移动速度	2.5 ~50mm/min
	温度范围	(室温+10℃) ~100℃
	温度控制精度	≤±1℃
主机	电源：单台主机	单相 220V 1.0kW
	单台环境箱	三相 380V 2.0kW

Specification

Model	ZRDL-W10	
Load	Max. load	10kN
	Measurement range	0.1~10kN
Displacement	Displacement measurement range	0~30mm
	Displacement measurement precision	0.005mm
Control parameters	Distance of push rod	120mm
	Rate of push rod	2.5~50mm/min
	Temperature range	(room temperature)~100℃
	Temperature control precision	≤±1℃
Mainframe	Power: one mainframe	one-phase : 220V 1.0kW
	One environment chamber	Three-phase: 380v 2.0kW

7.2.14 NWS 系列微机控制扭转试验机 7.2.14 Microcomputer-controlled Torsion Testing Machines



产品简介

型号：NWS 系列

该系列试验设备通过 GE S400(CMTL) 认证实验室认证

主要用途：

微机控制扭转试验机主要用于金属、非金属材料及零部件的扭转力学特性试验、如进行材料的扭转破坏、扭转切变模量、多步骤扭矩加载等试验。陪扭角计可测量切变模量、规定非比例扭转应力，该机具有运行稳定可靠、对环境适应高、测量范围大、分辨率及精度高的特点、是工厂、学校和科研单位理想的实验设备。其设计符合中华人民共和国标准 GB/T10128-88《金属室温扭转实验法》中对试验机的要求。

Product Introduction

Model: NWS series

The main function

Computer control torsion testing machine is mainly used to test the mechanical properties of the test metals, non-metallic materials and components, such as the destruction of materials torsion, torsion shear modulus, multi-step torque load tests. The twist angle meter to measure the shear modulus, nonproportional torsional stress, it has a stable and reliable environment to adapt to high, wide measurement range, resolution and high accuracy is ideal for factories, schools and research units laboratory equipment. Its designed to meet the People's Republic of China standard GB / T10128-88 "metal temperature torsion test method" in the tester requirements.

主要技术参数

型号	NWS500	NWS1000	NWS2000	NWS5000	NWS80000
最大扭矩 (N.m)	500	1000	2000	5000	80000
扭矩测量范围 (N.m)	量程的 1-100%				
扭矩测量精度	示值相对误差 $\leq \pm 0.5\%$			示值相对误差 $\leq \pm 1\%$	
扭矩测量分辨率	320000 码				
最大扭角显示范围	无限				
扭角显示精度	$\pm 0.5\%$				
扭角显示分辨率	0.0002°				
主动夹头转速 (度/分)	0.1° ~ 1000° , 无级可调				0.1 ~ 90°
扭转方向	正反两个方向				
夹头间距	0 ~ 600				300 ~ 2500
主机外形尺寸(mm)H.W.D	1130 × 500 × 1680	1120 × 500 × 1680	1100 × 470 × 1785	850 × 550 × 1780	1260 × 1700 × 5000
主机重量	580	650	800	2000	11000
整机功率	220V, $\leq 2.5\text{kw}$		220V, $\leq 3\text{kw}$	380V, $\leq 3\text{kw}$	380V, $\leq 5\text{kw}$
扭转计参数 (选配)	分辨率: 320000 码, 量程: 0.3-5 度, 精度: $\leq \pm 0.5\%$				

Specification

Model Item	NWS500	NWS1000	NWS2000	NWS5000	NWS80000
Maximum torque(N.m)	500	1000	2000	5000	80000
measurement range of torque(N.m)	1-100% of the measurement range				
measurement resolution of torque	320000 yards				
Max. torsional angle range	Infinite				
Torsional angle indicated accuracy	±0.5%				
Torsional angel indicated resolution	0.0002°				
Rotational speed of rotatable grip (°/min)	0.1-1000°, Stepless adjustable				
Relative error of measurement torque	≤±1%				
Torsion direction	positive negative				
Distance between grips (mm)	0~600				300~2500
Mainframe dimension(mm) HxWxD	1130x500x1680	1120x500x1680	1100x470x1785	850x550x1780	1260x1700x5000
Mainframe weight(kg)	580	650	800	2000	11000
Power	220v, ≤2.5kw		220v, ≤3kw	380v, ≤3kw	380v, ≤5kw
Parameter of torsion extensometer (optional)	Resolution:320000, measurement range: 0.3~5 degree, accuracy:				

7.2.15 高频疲劳试验机

7.2.15 High Frequency Fatigue Testing Machines



产品简介

型号：GPS 系列

该系列试验设备通过 GE S400(CMTL) 认证实验室认证

主要用途：

该设备是一种电磁激励共振型疲劳试验机，主要用于对金属材料及零部件进行高频拉伸、压缩试验及拉压交变负荷下的疲劳性能、断裂力学性能测试。

配备相应的夹具，还可以进行三点、四点弯曲，紧凑拉伸、板试件拉伸、齿轮、螺栓、连杆、链条等疲劳试验，还可以进行显微观察法裂纹扩展速率及程控加荷等试验。

Product Introduction

Model: GPS series

The Series testing machines are used for testing the fatigue property of metal material component by the action of tension

Fatigue is a process of the material is engendered topo-perpetual accumulated damage by the action of cyclic stress would crackle or rupture.

Uses characteristics :

The Series electromagnetism resonance fatigue testing machines are used for test the fatigue property of metal material component by the action of tension, compression or alternate load .If the relevant accessory are provided ,threeposition bending test ,four-position bending test ,tension compression of sheet sample test ,tension compression of circle sample test , bolt , connecting rod , roller chain, crackle exping test are available.

The serial testing machines have been optimization design the structure is rational . The Full Digitalization automatically pulse width modulation controlled system new power amplifiers are adopted, which enhances the vastly the reliability of electrical system .The advantage of the Series machines are high efficiency, easy to shake , duration of shaking, low energy consumption ,high controlling accuracy ,small fluctuation easy to operation.

The matched computer software could storage the test data, print the test report test curve, also could achieve the data processing curve drawing of S-N, Frequency-time, load-time. The software is based on Windows XP.

主要技术参数

型号	GPS20	GPS100	GPS200	GPS300
最大负荷 (kN)	± 20	± 100	± 200	± 300
最大单向脉动负荷 (kN)	± 20	± 100	± 200	± 300
最大交变负荷 (峰值)	10kN	50kN	100kN	150kN
衰变倍数分档	全程不分档		1, 2, 5	
平均负荷示值相对误差	≤ ± 1%			
交变负荷波动度	± 0.5%F.S			
平均负荷波动度	± 0.5%F.S			
频率范围	80 ~ 250 (Hz)			
夹头间最大距离	500(mm)	750(mm)	1000(mm)	1150(mm)
两柱间最大距离	350(mm)	420(mm)	500(mm)	580(mm)
外形尺寸(mm)	660 × 460 × 1900	800 × 600 × 2300	950 × 750 × 2600	1300 × 800 × 2900
电控箱外型尺寸	600 × 650 × 1200			
主机重量	约 1200kg	约 3000kg	约 5000kg	约 7500kg
电控箱	约 80kg	约 100kg	约 150kg	约 200kg
整机功率	220V 500W	380V 3500W 220V 500W	380V 4500W 220V 750W	380V 5500W 220V 1000W

Specification

Model Item	GPS20	GPS100	GPS200	GPS300	
Load capacity	±20 kN	±100 kN	±200 kN	±300 kN	
Max unidirection pulse load capacity	±20 kN	±100 kN	±200 kN	±300 kN	
Load capacity for dynamic load (peak value)	10 kN	50 kN	100 kN	150 kN	
Decay stepping	No step		1,2,5		
Relative error of static load value	≤±1%				
Range of Frequency	80~250 Hz				
Power	220v 500w	380v 3500w 220v 500w	380v 4500w 220v 750w	380v 5500w 200v 1000w	
Load fluctuation ratio	Dynamic	0.5%F-S			
	Static	0.5%F-S			
Max distance between grips	500 mm	700 mm	700 mm	700 mm	
Max distance between columns	350 mm	420 mm	500 mm	580 mm	
Dimension(mm)	Main unit	700×540×1850	800×700×2400	1100×810×2600	1300×850×2900
	Electric cabinet	600×650×1200			
Weight (kg)	Main unit	About 1200	About 3000	About 5000	About 7500
	Electric cabinet	About 200	About 300	About 350	About 350

7.2.16 钢绞线松弛试验机

7.2.16 Microcomputer Controlled Steel Couple Wire Relaxation Testing Machines



产品简介

主要用途：

该系列试验机主要用于钢绞线、金属缆索的松弛试验。

功能特点：

- 采用机电伺服系统加载，加载平稳，长时可靠，功耗小，噪声低。
- 采用高精度传感器测量力和变形，精度高，长时漂移小。
- 可直接测量试样标距内变形，消除夹头滑移等影响，测试精度高。
- 斜块式夹具，直接夹持钢缆，夹持方便可靠。
- 采用进口德国 DOLI 公司 EDC 数字式控制器，可实现力、变形控制。具有自动校准功能，保证长时测量，控制精度高，稳定可靠。
- 配置计算机系统，可对试验过程进行控制，并对试验数据进行采集处理。实时显示试验数据和试验曲线，具有断点恢复，故障报警，曲线刷新，自诊断等功能。

Product Introduction

Model: SWX series

With high accuracy low shift load cell to measure load deformation

MAIN TECHNOLOGY SPECIFICATIONS

1. Max. capacity: 300kN/500kN;
2. Load measuring error: $\pm 0.5\%$ of reading (from 1% of measuring range);
3. Deformation measuring range: 010mm;
4. Deformation measuring error: $\pm 0.5\%$ of reading (from 2% of measuring range);
5. Deformation control stability: less than $\pm 0.5\%$ of indicating value;
6. Gauge length: 600mm;
7. Max. rod trip: 200mm;
8. Rod speed: 0.01-50mm/min;
9. Max. distance between grips: 1000mm.

主要技术参数

型 号		SWX300	SWX500
试验力	最大试验力 (kN)	300KN	500KN
	试验力测量精度	±0.5%示值 (从满量程 1%开始)	
变形	变形测量范围	0~10mm	
	变形测量精度	在引伸计量程的 2%~100%范围内, 示值的±0.5%	
	引伸计标距	600mm	
主机	拉杆最大行程	200	
	拉杆速度	0.01~50mm/min	
	夹头间最大距离	1000mm	

Specification

Model		SWX300	SWX500
load	Max load (kN)	300KN	500KN
	Measurement accuracy	±0.5% (start from full range 1%)	
deformation	Measurement range	0~10mm	
	Measurement accuracy	Extensometer 2%~100%, indicating value ±0.5%	
	extensometer gauge length	600mm	
mainframe	Rod range	200	
	Rod speed	0.01~50mm/min	
	The maximum distance between chuck	1000mm	

7.2.17 电液伺服压剪试验机

7.2.17 Electro-hydraulic servo long column stress testing machines



产品简介

主要用途：

主要用于各种桥梁板式、球式、盆式橡胶支座进行抗压、抗剪切力的复合条件下，检测橡胶支座的轴向径向抗压、抗剪、转角力学试验，可进行橡胶支座的抗压弹性模量、抗剪弹性模量，容许剪切角，摩擦系数和极限抗压强度等力学性能试验，全面满足：JT/T4-2004《公路桥梁板式橡胶支座》、GB/T17955-2000《球形支座技术条件》，JT391-1999《公路桥梁盆式橡胶支座》标准要求，是科研生产、仲裁检验所需先进检测设备。

功能特点：

- 整机采用智能化设计，自动化程度高，测量准确，功能齐全，可靠性高，操作简单，使用方便。
- 可以自动完成抗压弹模试验，抗剪弹模及容许角试验，抗压强度试验，摩擦试验，摩擦系数，转角试验。
- 也可以用于进行混凝土等其他材料的弹性模量及压缩性能检测并可完成低周循环，三角波等组合波形试验。
- 具有过流，过速，超试验力，超行程等保护功能。

Product Introduction

Model: YNS-YJ series

It is specially fit for the large component the long column sample. If matching the corresponding assistant tool

Uses:

The Electro-hydraulic servo compression testing machines is the most advanced compression testing device, it could be used for metal non-metal material, specially the cement glue s, cement slurry, beton, high strength beton, floor tile so on to test the compression strength. The series testing machine is specially fit for the large component the long column sample. If matching the corresponding assistant tool, the machine also could proceed the curve testing.

Function:

- The mainframe could adopt the type of double-column or four-column.
- The area of press plate is large, the compress space is large.
- The compress space could be adjusted by the active transom.
- The max compress space could be produced on the based of the need of user.
- In order to make the loading unloading convenient, we could provide the mobile trolley.

主要技术参数

型 号		YNS-YJ 5000	YNS-YJ 10000	YNS-YJ 20000
试验力	轴向最大试验力	5000KN	10000 KN	20000 KN
	剪向最大试验力	1000 KN	2000 KN	4000 KN
	转角最大试验力	500 KN	1000 KN	2000 KN
	力示值精度	± 1%		
	力测量范围	2-100%		
变形	变形测量范围	2-100%		
	变形示值精度	± 1%		
主机	上下压板间距	1000mm	1500mm	2000mm
	轴向/剪向活塞行程	180/100 mm	250/150 mm	250/200 mm
	总功率	10KW	15KW	25KW
	外型尺寸(长*宽*高)	3900×1460×3500	4900×1750×5500	6000×1950×6800

Specification

Model		YNS-YJ 5000	YNS-YJ 10000	YNS-YJ 20000
Load	Max load	5000KN	10000 KN	20000 KN
	Precision of indicating value	± 1%		
	Displacement measurement error	2-100%		
Control parameters	Displacement measurement error	2-100%		
	Constant rate control precision	± 1%		
Mainframe	Distance between the press plate	1000mm	1500mm	2000mm
	Displacement of the plunger	180/100 mm	250/150 mm	250/200 mm
	Power supply	10KW	15KW	25KW
	Dimensions	3900×1460×3500	4900×1750×5500	6000×1950×6800

7.2.18 电液伺服压力试验机

7.2.18 Electro-hydraulic servo compression testing machines



产品简介

主要用途：

电液伺服压力试验机是目前国内最先进的压力试验设备，可以用于金属、非金属材料，特别是铁路，交通，建筑等行业用水泥胶沙、水泥净浆、混凝土、高强度混凝土、混凝土立方体、构件、砌块、地砖等其他材料的抗压强度试验，完全满足 GB/T50081-2002《普通混凝土力学性能试验方法标准》标准的抗压强度试验的要求，完全满足弹性模量加荷方法要求，是生产、检验、质量控制、科研及教学等部门理想的试验设备。

功能特点：

- 采用高精度负荷传感器，力值准确，稳定性好。
- 力、位移、变形等各种控制方式可在试验过程中任意切换。
- 具有自动调零，自动标定，宽范围高分辨率测量等优点。
- 可实现计算机对试验过程的自动控制，还可进行手动控制。
- 加荷速率可调。

Product Introduction

Model: YNS-Y series

It is the most advanced compression testing device, it could be used for metal non-metal material

Use:

The Electro-hydraulic servo compression testing machines is the most advanced compression testing device, it could be used for metal non-metal material, specially the cement glue s, cement slurry, beton, high strength beton, floor tile so on to test the compression strength.

Characteristics:

- With high precision load cell well stability;
- The force, displacement deformation controlling method could shift discretionarily in the testing process.
- The advantage include that automatic zero setting, automatic demarcating, width range testing high resolution testing.
- The machine could achieve the automatic controlling from computer to testing process, also could make manumotive controlling.
- The loading rate could be adjusted.

主要技术参数

型 号		YNS-Y2000 双柱式	YNS-Y5000 双柱式	YNS-Y2000 四柱式	YNS-Y5000 四柱式	YNS-Y10000 四柱式	
试验力	机构形式	固定横梁				可移动式横梁	
	最大试验力	300KN	1000KN	2000KN	3000 KN		
控制参数	分辨率	±320000 码, 全程不分档					
	力测量精度	在传感器量程的 2%~10%范围内, 优于示值得 ±1%					
	试验力等速率控制	0.5~100%F.S/min					
	位移等速率控制	0.5~50%mm/min					
	位移测量速度控制精度	±1%					
	速度精度	±1%					
	位移量程	150mm					
	测量分辨率	2um					
	电机功率	0,75	1,5				
	活塞行程	150			100	100	150
主机	立柱间距	246mm	365mm		540mm	500mm	
	上下压板间距	260mm	310mm		400mm	500mm	
	上下压盘尺寸	150	220x220		400x400	220x220	
	活塞行程	150mm	180mm	1150mm	180mm	400mm	
	总功率	380v,10% ,1,5kw		380v,10% ,3kw		380v,10% ,5kw	
	主机外形尺寸 (长*款*高)	520x330x1490	650x440x1400		980x610x1820	1000x580x1800	
	油源外形尺寸 (长*款*高)	900x760x800					

Specification

Model		YNS-Y300	YNS-Y1000	YNS-Y2000	YNS-Y3000	
Loading	Structure	Fixed transom			Fixed transom	Unfixed transom
	Max loading	300kN	1000kN	2000kN	3000kN	
Controlling parameters	resolution	± 320000 yards, stepless				
	Measurement precision	In the 2%~100% of measurement range of sensor, ≥ ± 1% of indicating value				
	Loading constant control	0.5%~100%F.S/min				
	Displacement constant control	0.5%~50%mm/min				
	Controlling precision of displacement measurement rate	± 1%				
	Rate precision	± 1%				
	Displacement measurement range	150mm				
	Measurement resolution	2 μ m				
	Dynamo power	0.75kw	1.5kw			
	Distance of plunger	150mm			100mm	100mm
mainframe	Distance between braces	246mm	365mm		540mm	500mm
	Distance between press plate	260mm	310mm		400mm	500mm
	Dimension of press plate	150mm	220x220mm		400x400mm	220x220mm
	Dimension of mainframe	520x330x1490mm	650x440x1400mm		980x610x1820mm	1000x580x1800mm
	Dimension of hydraulic source	900x760x800mm				
	power	380v, ± 10%, 1.5kw		380v, ± 10%, 3kw		380v, ± 10

7.2.19 大型土体三维多功能接触面试验机

7.2.19 Large-scale three dimensional multifunctional testing machines

产品简介

主要用途：

该试验机能够实现三维静力加载及动循环加载，可进行土与结构接触面直剪试验，土与结构接触面单剪试验，土与土的直剪试验，土与土的单剪试验；可进行土的压缩固结试验，土的压缩固结试验有两种不同的试验容器；可进行土与土工织物的二维拉拔试验。

功能特点：

- 可实现试验机在三个方向（水平两个正交方向及竖向，以下皆同）上独立加载及按照用户设定进行三个方向反馈控制及协调加载控制。

- 可进行三个方向的加载力及位移的测量，对测量值进行计算用于反馈伺服控制。

复杂加载方式指试验试样能够在试验过程中按照规定的加载方式受力，发生响应。规定的加载方式包括：

① 预定的应力路径，如圆形、椭圆形应力路径、十字形应力路径等，应力定义为加载力与试样横截面积按某种换算关系所得值；

② 预定的位移轨迹，如圆形、椭圆形位移轨迹，十字形位移轨迹等；位移轨迹以试样横截面上选定集点的位移轨迹进行衡量；

③ 用户试验时输入的其他加载方式，包括按照应力、位移分别进行控制及应力位移的耦合控制；

- 试验机控制系统有友好美观的人机交互图形界面，可方便的进行试验前试验机的校准、控制及试验过程中试验机的控制；不同试验种类有针对性的控制方式；试验测量数据可实时存储及显示，显示方式包括数据表格及图形方式；

- 试验机控制系统有过载自动保护机制，保证试验机的安全。

- 试验机能够方便的进行试验制样工作，有足够的操作空间，提供良好的制样作业环境。



Product Introduction

Model: ZSDM series

The main function

The test machine can achieve a three-dimensional static and dynamic load cyclic loading, direct shear test of soil and structure, simple shear test of soil and soil, soil compression consolidation test, two different test vessel; can be two-dimensional soil and geotextile pullout tests.

Features

- independent load testing machine can be achieved and in accordance with user-defined feedback control carried out in three directions and coordination load control in three directions (horizontal and vertical two orthogonal directions, hereinafter the same).

- can be measured in three directions of the loading force and displacement, the measurement values are calculated for a feedback servo control. Complex loading means that the test specimen during the test can be loaded in accordance with the provisions of the way by force, occurs in response.

Loading provisions include:

① predetermined stress path, such as round, oval stress paths cross paths stress, stress is defined as the cross-sectional area of the sample according to the loading force resulting conversion value of a relationship;

② a predetermined displacement path, such as circular, elliptical displacement track, cross displacement trajectory; displacement path of the sample cross section to be measured displacement path of the selected set of points; Other loading test when

③ user input, including in accordance with the stress, displacement and stress displacement control coupling control, respectively;

- testing machine control system has a friendly and beautiful interactive graphical interface, can be easily calibrated test before the test machine control and testing process control testing machine; different test species targeted control; experimental measurement data storage and display real-time display mode, including data tables and graphics mode;

- testing machine control system has automatic overload protection mechanism to ensure the safety of the testing machine.

- tester to easily test sample preparation work, there is sufficient room for maneuver, to provide a good sample preparation work environment.

7.2.20 岩石剪切流变试验机

7.2.20 Rock Shearing Rheology Testing Machines

产品简介

主要用途：

该系列试验机主要用于岩石或混凝土试样受剪切力长时间作用下的流变性能测试及研究，可进行含有弱面岩体等岩石的剪切流变试验，可对一般岩石进行单轴流变试验。

功能特点：

- 能进行力和变形控制，长时保持力或变形恒定，测量剪切变形或力随时间的变化，即可进行蠕变或松弛试验。
- 采用机电伺服系统施加轴向力和剪切力，加载平稳、长时可靠、功耗低、噪声小。
- 采用高精度测力传感器测量轴向力和剪切力，测量精度高，漂移小。
- 采用德国 DOLL 公司生产的 EDC60 全数字控制器与工控计算机组成的测控系统，可对试验全程自动进行控制、检测、分析、定时自检，再现并实时显示试验数据和试验数据曲线。

● 操作方便，自动化程度高。有较强的图形处理功能。具有曲线放大、曲线遍历、曲线坐

● 标移动、相关曲线叠加、添标注及打印等功能。

● 配有 UPS 电源，可在突然断电的情况下保证试验正常进行及试验数据和曲线的完整。

主要规格及技术指标

- 型号：ZYJ-L400
- 轴向最大压力：400kN
- 切向最大压力：400kN
- 试验力分辨率：<10N
- 试验力测量误差：±0.5% 示值
- 切向变形测量范围：0-20mm
- 变形测量误差：±0.5%F.S
- 轴向切向加载速度：0.001 ~ 10mm/min 或 2 ~ 100kN/min
- 试样尺寸 (mm) H.W.D.：150*150*150 mm
100*100*100 mm
- 长时稳定工作时间：不少于 120 天
- 正常流变试验情况下的功耗：< 0.5kW



Product Introduction

Model: ZYJ series

The machine of this series is mainly applied to rheology property test research of rock concret

Main functions features:

- The machine can perform force deformation control, retain force or constant deformation for a long time, measure the shearing deformation the force variation with time, which means it can perform creep or relaxation tests;
- The machine adopts motor servo system to apply axial forces shearing forces with steady loading, long-term reliability, low power consumption, less noises;
- It adopts high-precision force measuring sensors to measure axial forces shearing forces with high measuring precision drift elimination;
- It adopts the measuring controlling system composed of EDC fully digital controllers produced by German DOLI Company industrial computers for controlling, detecting, analyzing self-inspecting regularly in full course of testing automatically, displaying testing data curves in real time;
- The machine can be operated conveniently with high automation have powerful functions of graphic data processing, curve amplification, curve traversing, curve coordinates moving, overlapping of relevant curves, marking printing etc.;
- Its equipped with UPS power supply to ensure the completeness of tested data curves in case of sudden electricity failure.

Specifications:

Mode: ZYJ-L400

- Vertical loading capacity: 400kN
- Horizontal loading capacity: 400kN
- Resolution of loading: < 10N
- Measuring accuracy of loading: +/-0.5% at reading value
- Horizontal measuring range of deformation: 0-20mm
- Measuring accuracy of deformation: +/-0.5% F.S.
- Loading speed: 0.001-10mm/min or 2-100kN/min
- Dimension of specimen (H.W.D.): 150x150x150mm or 100x100x100mm
- Stability for long-time working: more than 120 days
- Power consumption: <0.5 kW

7.2.21 S 型传感器 7.2.21 S type load cell



产品简介

CLY-03 型

全焊接密封，并具有气压补偿功能，可在恶劣环境长期工作，性能可靠稳定

用于各类试验机、各类电子秤等仪器的测力和称重

量程：100N—10kN。

Product Introduction

Mode: CLY-03

All sealed by welding, with pressure compensation function, can work for long time in bad environment, function stable, can be used for force measurement weighing for all kinds of testing machine, electronic scale balance.

Measuring range: 100N-10kN.

主要技术参数

型号	CLY-03		
精度等级	0.02	0.05	0.1
输出灵敏 MV/V	1.5~2		
非线性度%F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
滞后%F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
不重复度%F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
蠕变%F.S/30min	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
零点温度影响%F.S/°C	$\leq \pm 0.03$	$\leq \pm 0.05$	
输出温度影响%F.S/°C	$\leq \pm 0.03$	$\leq \pm 0.05$	
安全负荷%F.S	120		
输出电阻	350		
推荐供桥电压 V	≤ 12		
最大供桥电压 V	≤ 15		
零点输出%F.S	$\leq \pm 1.0$		
绝缘电阻	≥ 500		

Specification

type	CLY-03		
accuracy	0.02	0.05	0.1
Output sensitivity MV/V	1.5~2		
non linearity %F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
Lag %F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
No duplication %F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
Creep deformation%F.S/30min	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
Temperature Effect on Zero point F.S/°C	$\leq \pm 0.03$	$\leq \pm 0.05$	
Temperature Effect On Output%F.S/°C	$\leq \pm 0.03$	$\leq \pm 0.05$	
Safety loading %F.S	120		
Output resistance	350		
Recommend bridge voltage V	≤ 12		
Max bridge voltage V	≤ 15		
Zero point output %F.S	$\leq \pm 1.0$		
insulation resistance	≥ 500		

7.2.22 单 / 双排孔式传感器

7.2.22 Single/double row hole type load cell (can be used for both dynamic static)



产品简介

CLY-25/26 型 (动静两用)

结构新颖、精度高，性能可靠稳定，可在恶劣环境长期工作于各类试验机、汽车衡、平台秤等仪器设备的测力和称重

量程：10kN-600kN。

Product Introduction

Model: CLY-25/26

New design, high precision, stable function, can be work for long time in severe environment Can be used as force measuring weighing for all kinds of testing machine, truck scale, platform weighing

Measuring range:10kN-600kN.

主要技术参数

型号	CLY-25/26		
精度等级	0.02	0.03	0.05
输出灵敏 MV/V	1.5~2		
非直线度%F.S	$\leq \pm 0.02$	$\leq \pm 0.03$	$\leq \pm 0.05$
滞后%F.S	$\leq \pm 0.02$	$\leq \pm 0.03$	$\leq \pm 0.05$
不重复度%F.S	$\leq \pm 0.02$	$\leq \pm 0.03$	$\leq \pm 0.05$
蠕变%F.S/30min	$\leq \pm 0.02$	$\leq \pm 0.03$	$\leq \pm 0.05$
零点温度影响%F.S/°C	$\leq \pm 0.02$	$\leq \pm 0.03$	
输出温度影响%F.S/°C	$\leq \pm 0.02$	$\leq \pm 0.03$	
安全负荷%F.S	120		
输出电阻	350		
推荐供桥电压 V	≤ 12		
最大供桥电压 V	≤ 15		
零点输出%F.S	$\leq \pm 1.0$		
绝缘电阻	≥ 500		

Specification

Type	CLY-25/26		
Accuracy	0.02	0.03	0.05
Output sensitivity MV/V	1.5~2		
non linearity %F.S	$\leq \pm 0.02$	$\leq \pm 0.03$	$\leq \pm 0.05$
Lag %F.S	$\leq \pm 0.02$	$\leq \pm 0.03$	$\leq \pm 0.05$
No duplication %F.S	$\leq \pm 0.02$	$\leq \pm 0.03$	$\leq \pm 0.05$
Creep deformation%F.S/30min	$\leq \pm 0.02$	$\leq \pm 0.03$	$\leq \pm 0.05$
Temperature Effect on Zero point F.S/°C	$\leq \pm 0.02$	$\leq \pm 0.03$	
Temperature Effect On Output%F.S/°C	$\leq \pm 0.02$	$\leq \pm 0.03$	
Safety loading %F.S	120		
Output resistance	350		
Recommend bridge voltage V	≤ 12		
Max bridge voltage V	≤ 15		
Zero point output %F.S	$\leq \pm 1.0$		
insulation resistance	≥ 500		

7.2.23 扭矩传感器 7.2.23 Torque transducer



产品简介

CNY-81 型

结构简单，性能稳定

可用于各种仪器设备在静态或小摆动情况下测试其扭转力矩的大小

量程：20N.m-6000N.m。

Product Introduction

Model: CNY-81

Simple structure, stable function

Can be used to measure torque force when equipment under static or small swing status

Measuring range: 20N.m-6000N.m.

主要技术参数

型号	CNY81		
精度等级	0.02	0.05	0.1
输出灵敏 MV/V	1.5~2		
非直线度%F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
滞后%F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
不重复度%F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
蠕变%F.S/30min	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
零点温度影响%F.S/°C	$\leq \pm 0.03$	$\leq \pm 0.05$	
输出温度影响%F.S/°C	$\leq \pm 0.03$	$\leq \pm 0.05$	
安全负荷%F.S	120		
输出电阻	350		
推荐供桥电压 V	≤ 12		
最大供桥电压 V	≤ 15		
零点输出%F.S	$\leq \pm 1.0$		
绝缘电阻	≥ 500		

Specification

Type	CNY81		
Accuracy	0.02	0.05	0.1
Output sensitivity MV/V	1.5~2		
non linearity %F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
Lag %F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
No duplication %F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
Creep deformation%F.S/30min	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
Temperature Effect on Zero point F.S/°C	$\leq \pm 0.03$	$\leq \pm 0.05$	
Temperature Effect On Output%F.S/°C	$\leq \pm 0.03$	$\leq \pm 0.05$	
Safety loading %F.S	120		
Output resistance	350		
Recommend bridge voltage V	≤ 12		
Max bridge voltage V	≤ 15		
Zero point output %F.S	$\leq \pm 1.0$		
insulation resistance	≥ 500		

7.2.24 轮辐式传感器 7.2.24 Spoke type load cell



产品简介

CLY-20 型（动静两用）

整体高度低、拉压两用、密封、性能稳定可靠

用于各类试验机、汽车衡、轨道衡等设备的测力和称重

量程：10kN-2MN。

Product Introduction

Model:CLY-20 (for both dynamic static)

Low height, for tensile compress, sealed, function stable

Can be used as force measuring weighing for all kinds of testing machine, truck scale, platform weighing

Measuring range:10kN-2MN.

主要技术参数

型号	CLY20		
精度等级	0.02	0.05	0.1
输出灵敏 MV/V	1.5~2		
非直线度%F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
滞后%F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
不重复度%F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
蠕变%F.S/30min	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
零点温度影响%F.S/°C	$\leq \pm 0.03$	$\leq \pm 0.05$	
输出温度影响%F.S/°C	$\leq \pm 0.03$	$\leq \pm 0.05$	
安全负荷%F.S	120		
输出电阻	350		
推荐供桥电压 V	≤ 12		
最大供桥电压 V	≤ 15		
零点输出%F.S	$\leq \pm 1.0$		
绝缘电阻	≥ 500		

Specification

Type	CLY20		
Accuracy	0.02	0.05	0.1
Output sensitivity MV/V	1.5~2		
non linearity %F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
Lag %F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
No duplication %F.S	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
Creep deformation%F.S/30min	$\leq \pm 0.03$	$\leq \pm 0.05$	$\leq \pm 0.1$
Temperature Effect on Zero point F.S/°C	$\leq \pm 0.03$	$\leq \pm 0.05$	
Temperature Effect On Output%F.S/°C	$\leq \pm 0.03$	$\leq \pm 0.05$	
Safety loading %F.S	120		
Output resistance	350		
Recommend bridge voltage V	≤ 12		
Max bridge voltage V	≤ 15		
Zero point output %F.S	$\leq \pm 1.0$		
insulation resistance	≥ 500		

7.2.25 应变式传感器二次仪表 7.2.25 Rain sensor two meter



产品简介

本仪表采用低漂移前置放大、 $\Sigma - \Delta$ 型 A/D 转换、单片机数据处理、液晶屏直读显示，可用于应变式传感器（应变式负荷传感器、应变式压力传感器、应变式引伸计等）的输出信号后续处理，并可通过 232 接口，将数据传输给计算机。

本仪表配接 0.1% 精度的传感器，其综合精度可达示值的 1% 以上，配接 0.05% 精度的传感器其综合精度可达示值 0.5% 以上。

Product Introduction

This device adopts low drift pre-amplification, $\Sigma - \Delta$ type A/D transfer, single chip data processor, LCD display, can be used for post-processing for output signal of strain sensor (strain load cell, strain pressure transducer, strain extensometer), can be connect by RS232, transfer data to computer.

If device connects 0.1% accuracy load cell, the comprehensive accuracy can reach 1% of readout;

If device connects 0.05% accuracy load cell, the comprehensive accuracy can reach 0.5% of readout.

7.2.26 扭角计

7.2.26 Torsion angle meter



产品简介

工作原理:

利用专门设计的扭转引伸计夹持系统，可靠地装夹在试样上，采用应变片夹式引伸计进行机械量与电信号的转换，使之完成扭转应变的自动测试。

技术指标:

- 1、扭转引伸计的标距：该装置分别配置 50mm、100mm 标距联接延伸横臂。
- 2、标配试样直径：Φ8mm Φ10mm Φ12mm。
- 3、扭转中心至夹式引伸计测量刀口之距离：50mm。
- 4、夹式引伸计两刀口工作初始距离：6mm。
- 5、夹式引伸计最大变形量：8mm（扭转角约 10°）
- 6、拱桥电压 ≤ 6V，输出灵敏度约 2mV/V
- 7、精度：优于 0.3% F.S
- 8、可测试技术数据：切变模量 G、规定非比例扭转应力 τ_p （例如 $\tau_{p0.015}$ 、 $\tau_{p0.3}$ 等）

标定

只对夹具引伸计进行 8mm 变形量的标定。将标定仪两分离试样部分，组装成两刀口夹持方式，其两刀口距离为 6mm。夹式引伸计装在两刀口之间，每组至少标定 10 点，标定三次取均值输入计算机。通过相关数学模型计算获得扭转变量。

Product Introduction

1. Use specially designed torsion extension meter clip system, torsion angle meter can be clipped on sample fastening, adopt strain gauge clip on extensometer to do transfer between mechanical electrical signal, to finish torsion strain automatic test.

2. Technical data

1. gauge length: equipped with 50mm, 100mm gauge connection extension arm
2. sample diameter for standard allocation: Φ8mm Φ10mm Φ12mm.
3. distance between torsion center extensometer measuring blade: 50mm.
4. two blade initial distance: 6mm.
5. max deformation: 8mm (torque angle 10°)
6. bridge voltage ≤ 6V, output sensitivity: 2mV/V
7. accuracy: better than 0.3% F.S
8. data can be measured: shear modulus G, Provisions of the torsional stress ratios τ_p ($\tau_{p0.015}$, $\tau_{p0.3}$ etc)

2. calibration

Only do 8mm deformation calibration for clip on extensometer, separate calibrator into two parts, assemble two blade clip on method, distance between two blade is 6mm. Clip on extensometer assembly between two blades, each group calibrate at least 10 points, calibrate 3 times, take average value input into computer. Through relative mathematics patterns to calculate torsion value.

7.2.27 圆周引伸计（混凝土）

7.2.27 Circumferential extensometer



产品简介

型号：CBY1 YZ-8

主要功能：

CBY1 YZ -8 是用于测量圆周变形的引伸计

主要指标：

使用温度：常温；

灵敏度： $\geq 1.5\text{mV/V}$ ；

标距：直径 50 或 100；

量程：8

夹持方法：

1. 把标距销插好，定好引伸计的机械零点；
2. 用弹簧压垫把链条一端的链条轴压在刀口 V 型槽内；
3. 把链条另一端的链条轴挂在另一面的刀口 V 型槽内；
4. 选择合适厚度的调整垫（备品内），调整到引伸计插标距销时链条紧紧围在试样上链条轴与两刀口距离很小固定（保证引伸计夹持试样时的零点与引伸计的机械零点接近）；
5. 调整支撑，把引伸计支撑在试样上，用螺钉固定支撑；
6. 按下标距销，完成准备工作；
7. 调整好之后，每次试验只需把引伸计挂在链条轴上即可。

Product Introduction

Model: CBY1 YZ-8

Main function:

CBY1 YZ -8 is extensometer which is used for measure circular deformation

Main specification:

Temperature: room temperature.

Sensitivity: $\geq 1.5\text{mV/V}$.

Gauge length: Diameter 50mm or 100mm.

Measuring range: 8

Clamping method:

1. The gauge pin inserted, will be a good mechanical extensometer zero;
2. Use the spring pressure pad at one end of the chain to the chain axis pressure in the knife-edge V-groove;
3. Place the other end of the chain hanging on the other side of the chain axis of the knife-edge V-groove;
4. Select the appropriate thickness adjustment pad (within spare parts), adjusted to the extensometer gauge pin inserted when the chain on the specimen chain tightly around the shaft and the two small fixed blade distance (guaranteed extensometer zero when the sample holder and mechanical extensometer near zero);
5. Adjust the support, the support of the extensometer on the specimen, with screws support;
6. Unplug the gauge pins to complete the preparatory work;
7. Adjust after each test simply extensometer can be hung on the chain axis.

7.2.28 可变标距大变形测量仪

7.2.28 Variable gauge big deformation measuring device



产品简介

主要用于橡胶、塑料等大变形材料精确试样标距间的变形。

名称	型号	标距 (mm)	量程 (mm)	示值误差% (级别)
大变形引伸计	CBW94	变标距	10-600	分辨率 0.01mm ≤0.5F.S

Product Introduction

Variable gauge big deformation measuring device, mainly be used for measuring precision gague deformation of big deformation material sample such as rubber plastic.

Name	Type	Gauge length (mm)	Measuring range(mm)	Readout error% (class)
Big deformation extensometer	CBW94	variable	10-600	Resolution 0.01mm ≤0.5F.S

7.2.29 COD 系列夹式引伸计

7.2.29 COD clip on extensometer



产品简介

名称	型号	标距 (mm)	量程 (mm)	示值误差% (级别)	
COD 夹式引伸计	COD 10-2	10	2	0.5	1
	COD 12-2	12	2	0.5	1

Product Introduction

Name	Type	Gauge length (mm)	Measuring range (mm)	Readout error% (class)	
COD clip on extensometer	COD 10-2	10	2	0.5	1
	COD 12-2	12	2	0.5	1

7.2.30 CBY1 J 系列径向引伸计 7.2.30 CBY1 J series radial extensometer



产品简介

名称	型号	标距 (mm)	量程 (mm)	示值误差% (级别)	
CBY1 J 径向引伸计	CBY1 J	6-22	±2	0.5	1

Product Introduction

Name	Type	Gauge length (mm)	Measuring range (mm)	Readout error% (class)	
CBY1 J radial extensometer	CBY1 J	6-22	±2	0.5	1

7.2.31 CBY 系列轴向引伸计

7.2.31 Axial extensometer



产品简介

CBY 系列轴向引伸计用于测量和控制拉伸、压缩或疲劳试验时试样标距的轴向变形量。

该系列引伸计结构合理、性能稳定，主要指标已经达到国外同类产品水平。

Product Introduction

Model: CBY series

CBY series axial extensometer used for measure control sample axial deformation during tensile, compression fatigue test

Reasonable structure, stable function, main specification reaches internal advance level already.

名称	型号	标距 (mm)	量程 (mm)	示值误差% (级别)		
CBY1 系列应 变式轴向引伸计 (固定标距)	CBY1 10-1.25	10	1.25		0.5	
	CBY1 10-2.5	10	2.5	0.2	0.5	
	CBY1 12-1.25	12	1.25	0.2	0.5	
	CBY1 12-2.5	12	2.5	0.2	0.5	
	CBY1 25-2.5	25	2.5	0.2	0.5	
	CBY1 25-5	25	5	0.2	0.5	
	CBY1 50-2.5	50	2.5	0.2	0.5	
	CBY1 50-5	50	5	0.2	0.5	
	CBY1 100-2.5	100	2.5	0.2	0.5	
	CBY1 100-5	100	5	0.2	0.5	
	CBY1 100-12.5	100	12.5		0.5	1
	CBY1 100-25	100	25		0.5	1
	CBY1 200-12.5	200	12.5		0.5	1
	CBY1 200-25	200	25		0.5	1
	CBY1 250-12.5	250	12.5		0.5	1
	CBY1 250-25	250	25		0.5	1
	CBY1 300-12.5	300	12.5		0.5	1
	CBY1 300-25	300	25		0.5	1
	CBY1 350-12.5	350	12.5		0.5	1
	CBY1 350-25	350	25		0.5	1
	CBY1 400-12.5	400	12.5		0.5	1
	CBY1 400-25	400	25		0.5	1
	CBY1 500-12.5	500	12.5		0.5	
CBY1 500-25	500	25		0.5	1	
CBY1 600-12.5	600	12.5		0.5	1	
CBY1 600-25	600	25		0.5	1	
订货型号: CBY1 标距-量程 级别 例如: 25 标距 5 量程 0.5 级 CBY1 25-5 0.5						
CBY2 系列应 变式轴向引伸计 (变标距)	CBY2-2.5	45-105	2.5		0.5	1
	CBY2-5		5		0.5	1
	CBY2-12.5		12.5		0.5	1
	CBY2-25		25		0.5	1
	CBY2 25-2.5	100-200			0.5	1
	CBY2 25-5		12.5		0.5	1
	CBY2 50-2.5		25		0.5	1
	CBY2 50-5	200-350	12.5		0.5	1
	CBY2 100-2.5		25		0.5	1
	CBY2 100-5	350-500	12.5		0.5	1
	CBY2 100-12.5		25		0.5	1
	CBY2 100-25	500-650	12.5		0.5	1
	CBY2 200-12.5		25		0.5	1
订货型号: CBY2 标距-量程 级别 例如: 100-200 标距 5 量程 0.5 级 CBY2 100-5 0.5						

Name	Type	Gauge (mm)	Measuring range (mm)	Readout error% (class)		
CBY1 series strain type extensometer (fixed gauge)	CBY1 10-1.25	10	1.25		0.5	
	CBY1 10-2.5	10	2.5	0.2	0.5	
	CBY1 12-1.25	12	1.25	0.2	0.5	
	CBY1 12-2.5	12	2.5	0.2	0.5	
	CBY1 25-2.5	25	2.5	0.2	0.5	
	CBY1 25-5	25	5	0.2	0.5	
	CBY1 50-2.5	50	2.5	0.2	0.5	
	CBY1 50-5	50	5	0.2	0.5	
	CBY1 100-2.5	100	2.5	0.2	0.5	
	CBY1 100-5	100	5	0.2	0.5	
	CBY1 100-12.5	100	12.5		0.5	1
	CBY1 100-25	100	25		0.5	1
	CBY1 200-12.5	200	12.5		0.5	1
	CBY1 200-25	200	25		0.5	1
	CBY1 250-12.5	250	12.5		0.5	1
	CBY1 250-25	250	25		0.5	1
	CBY1 300-12.5	300	12.5		0.5	1
	CBY1 300-25	300	25		0.5	1
	CBY1 350-12.5	350	12.5		0.5	1
	CBY1 350-25	350	25		0.5	1
	CBY1 400-12.5	400	12.5		0.5	1
	CBY1 400-25	400	25		0.5	1
	CBY1 500-12.5	500	12.5		0.5	
CBY1 500-25	500	25		0.5	1	
CBY1 600-12.5	600	12.5		0.5	1	
CBY1 600-25	600	25		0.5	1	
CBY2 series strain type extensometer (variable gauge)	CBY2-2.5	45-105	2.5		0.5	1
	CBY2-5		5		0.5	1
	CBY2-12.5		12.5		0.5	1
	CBY2-25		25		0.5	1
	CBY2 25-2.5	100-200			0.5	1
	CBY2 25-5		12.5		0.5	1
	CBY2 50-2.5		25		0.5	1
	CBY2 50-5	200-350	12.5		0.5	1
	CBY2 100-2.5		25		0.5	1
	CBY2 100-5	350-500	12.5		0.5	1
	CBY2 100-12.5		25		0.5	1
	CBY2 100-25		12.5		0.5	1
	CBY2 200-12.5	500-650	25		0.5	1

7.2.32 UZ 型高温真空（充气）加热炉 7.2.32 Vacuum high temperature heating furnace



产品简介

高温真空（充气）加热炉可与电子万能试验机和动静疲劳试验机配套，在高温条件下进行力学性能试验

功能特点：

- 工作温度范围：600 ~ 2200℃
- 均热带长：50mm
- 拉伸行程不小于 60mm
- 温度梯度：≤ 1%（真空条件下）
- 工作温度低于 1800℃ 保温条件下 6.5×10^{-3} pa
- 工作温度高于 1800℃ 保温条件下 2×10^{-2} pa
- 数字式温控器精度：±0.1%FS
- 温度波动度：±3℃
- 升温速度：平均升温速度 3℃ /min—50℃ /min
- 工作电源：380V ±10%，50Hz，总功率 25KW

Product Introduction

UZ type vacuum high temperature heating furnace can be the related device of high temperature of electronic universal testing machines or other tension testing machines. under various kinds of under high-temperature states of 2200 degrees Centigrade, carry on the mechanical performance test of the high temperature to the metal material .

Key features:

1.Vacuum furnaces

1) Temperature range: 600℃ —2000℃

2) soaking range: 50mm

3) Average speed of temperature up: 3℃ /min—5℃ /min

4) Temperature gradient: 1%

5)Temperature fluctuation: $\leq \pm 3^\circ\text{C}$ accuracy of controlling temperature instrument: 0.1%FS

6)vacuum degree: 6.5×10^{-3} Pa(while keeping heating)

7) tension range: no less than 60mm

8)Test time span: $\leq 1600^\circ\text{C} \leq 100\text{h}$

$1600^\circ\text{C} \sim 2000^\circ\text{C} \leq 24\text{h}$

2.Hing tension test grips for round bar specimen under high temperature extension pole for deformation measurement:

1) round specimen size: $\Phi 5$, gauge len gth: 25mm

2) Deformation measurement under high temperature: with differential transformer(LVDT), measurement range $\pm 3\text{mm}$, min. indexing value 1μ , linear 0.5%FS.

3) way of deformation measurement under high temperature: average value of both side

4) working temperature period of extension pole for deformation measurement: 2000℃

3.flat specimen under high temperature grips extension pole for deformation measurement

1) flat specimen size: thickness 3mm, gauge length 25mm, width 6mm, pin hole $\Phi 6\text{mm}$

2) Deformation measurement under high temperature: with differential transformer(LVDT) ,measurement range $\pm 3\text{mm}$,min. indexing value 1mm,linear 0.5%FS;

3) way of deformation measurement under high temperature: average value of both side

4) working temperature period of extension pole for deformation measurement: 2000℃

7.2.33 XH-121 型高低温试验箱

7.2.33 Temperature chamber



产品简介

高低温试验箱可与电子万能试验机、持久蠕变试验机、动静疲劳试验机等相配合，在高温或低温条件下进行力学性能试验。

功能特点：

- 1、工作温度范围：- 70 ~ +350℃
- 2、温度波动度：≤ ±2℃
- 3、温度梯度：50mm 标距内不大于 2℃
- 4、工作室有效空间：240×240×450mm(长×宽×高)
- 5、加热体功率：2KW
- 6、鼓风电机：380V、120W

Product Introduction

XH-121A temperature chamber is mainly used to do tests under high temperature for various kinds of nonmetallic materials, such as plastics, rubber, etc., can be used on creep testing machines electronic universal testing machines or electric-servo testing machines.

Key features:

1. Temperature range: -70~+350℃
2. Temperature fluctuation: less than±2℃
3. Temperature gradient: less than 3℃ within 100mm
4. Effective space: 240×240×450
5. Power: 2Kw
6. External size: 410×475×680mm

出口业绩

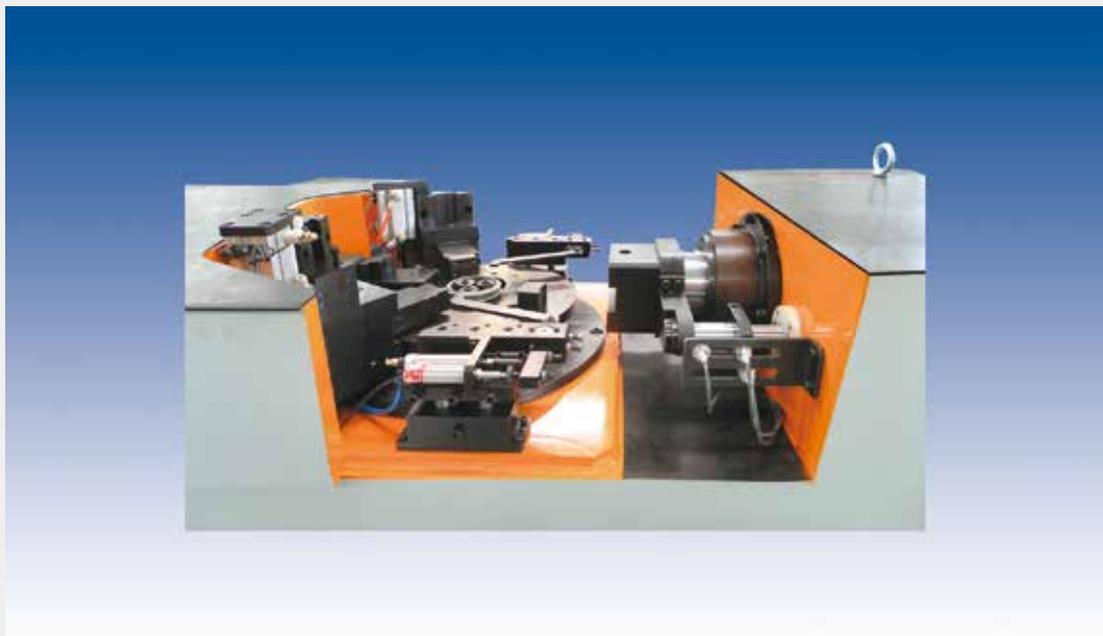
年出口业绩 200 万元左右。

Export Performance

2,000,000 yuan.

7.3.1 YW10-J 系列圆度校正机

7.3.1 YW10-J Series Ovality Correction Machine



产品简介

YW10-J 系列圆度校正机 该设备是针对齿圈类零部件产品在热处理前后所需要的校正工序而设计的自动检测矫圆装置，具有测量精度高、操作简单易学、可适应多种工件等特点。

设备功能：

在自动矫圆过程中，操作者只需操作工件的装卸以及“自动运行”按钮开关，工件的圆度测量、矫圆点定位、修正量以及矫圆完成后的圆度检查等动作全部自动完成，这在很大程度上保证了测量结果的准确性，提高了生产效率，同时减轻了操作者的劳动强度；该设备具有设定最大修正量限制的功能，最大限度地保护工件不会被过量修正而压断或压裂，从而保证工作安全；

测控软件具有自适应功能，可以根据工件不圆度的不同自动调整修正量大小，以适应不同工件对校圆行程的不同要求；

该设备具备手动调整功能，操作者可分别操作各个动作单元，以调整机械状态；

可存储 100 种工件的大型数据存储系统，完全满足用户生产需求；

具有筛选功能，若初始变形量超过设定范围，可直接做为不合格件处理；

具有自动诊断一般故障所在部位的指示功能，方便了设备维护。

Product Introduction

The machine is used for the measurement correction of gear ring products after heat treatment. It features with high precision, easy-operation versatility.

Functions:

During the ovality correction process, rotation, measuring, positioning, correction final checking processes are all finished by the machine automatically, operator only needs to load unload workpieces press the "autorun" button. This program design greatly improves the correction accuracy, work efficiency reduce the workload of operators.

The equipment has max correcting limit function to prevent workpieces from cracking or breaking caused by over-correction, it offers great safety.

The operating software of the machine has self-adapting function that can adjust correction value according to different roundness of workpieces, thus fully meet dems of different workpieces.

The equipment has manual adjustment function which allows user to operate each acting unit respectively to adjust working status of the machine.

The machine has a big data storing system for 100 different workpieces. The software has selecting function; if the initial deformation value of workpieces is bigger than the setting value, the machine will select it out as unqualified product.

To make the repair maintenance easier, the machine has self-diagnose function that can indicate where the fault occurred.

主要技术参数

型号项目	YW10-J
主机形式	卧式主机
可校直工件规格	≤ φ 500mm
测量方式	挺杆
工件转速	30rpm
测量点数	1 点
修正点数	1 点
重复测量精度	≤5 μ m
测量位置	外齿、内齿
测量方式	测量片、标准齿轮
工件定位方式	三爪定心
控制系统	一体化工作站
最大加载能力	100kN
效率	45-90 件/小时
电源	三相五线制 380V 7kVA
主机重量	1.5 吨

Specification

Model items	YW10-J
Mainframe structure	Horizontal
Outer diameter of workpieces	≤ φ500mm
Measure methods	Tappet
Rotation speed of workpieces	30rpm
Measuring points	1 point
Correction points	1 point
Repeated measuring accurac	< /=5um
Measuring positions	External gear/ internal gear
Measurement methods	Envelop blade/ stard gear
Locating method of workpieces	Centering by three-jaw
Control system	Integrated workstation
Load capacity	100Kn
Power supply	Three-phase, five-wire, 308V, 7Kva
Weight of mainframe	1.5T

7.3.2 石油钻具专用校直机

7.3.2 Oil drilling special straightening machine



产品简介

石油行业的钻井工程中需要使用大量钻具，而钻具在使用后容易发生变形、弯曲，只有校直后才能再次投入使用。目前，国内外的钻具校直设备主要是依靠操作者的经验和手动操作，测量模糊，校直精度不能保证，校直参数不能存储、打印，工作过程没有可追溯性。而且整个校直过程劳动强度大，效率低。

我公司开发的新型钻具液压自动校直机首次实现了全自动的、高精度的校直过程，整体技术水平处于国际领先水平。本系统具有测量精度高、可适应多种工件、可显示及存储工作参数、且操作简单易学的优点，不仅大大提高了生产效率，而且极大地减轻了操作者的劳动强度，具有较好的市场前景。

型号：SJEM6001109L

输出压力 600 吨

校直直径为 $\phi 70\text{mm} - \phi 300\text{mm}$ ，

校直工件长度为 1.5m—8m，

校直精度为：长度 2m 以内直线度为 1mm，长度 2m—4m 直线度为 2mm，长度 4m—8m 直线度为 3mm。

Product Introduction

Oil drilling industry needs to use a large number of drilling tools, and the drill string after use easily deformed, bent, after straightening only be put into use again. Currently, drilling straightening equipment at home and abroad mainly rely on the operator's experience and manual operation, fuzzy measure, does not guarantee the accuracy of alignment, alignment parameters can not be stored, printed, work process is not traceable. And the whole process of straightening labor-intensive, low efficiency.

We developed a new type of drill hydraulic automatic straightening machine for the first time to achieve a fully automated, high-precision alignment process, the overall level of technology in the international advanced level. The system has high accuracy, can be adapted to a variety of artifacts, displays and store operating parameters, and the operation is easy to learn the advantages, not only greatly improve the efficiency of production, but also greatly reduce the operator's labor intensity, with good market prospects.

Oil drilling special straightening machine

Model: SJEM6001109L

Capacity: 600T

Diameter: $\phi 70\text{mm} - \phi 300\text{mm}$,

Length: 1.5m-8m,

Accuracy: Linearity: 1mm if length is less than 2m

Linearity: 2mm if length is 2m-4m

Linearity: 3mm if length is 4m-8m

7.3.3 JJCD 系列机械式全自动 MINI 校直机

7.3.3 JJCD Series Full-automatic MINI Straightening Machine



产品简介

JJCD 迷你校直机主要特点

机械式 MINI 自动校直机采用伺服电机做动力源，控制精度高，无过冲，不损伤工件

采用单点校直，精度高、节拍快

采用 C 型工作台，一体化工作站，操作简单

占地面积小，重量轻

耗电量小、噪音低

适合配自动生产线

可校直机工件种类：摩托车轴、电机轴、打印机轴、复印机轴等。

Product Introduction

Main Features

The JJCD series straightening machine adopts servo motor as its power source, features with high control accuracy, no overshoot, no damage to workpieces.

Adopt single-point straightening with high accuracy high working frequency.

Adopt C type worktable with integrated workstation that makes operation easier.

Small covering area, light weight.

Low power consumption, low noise.

It is suitable to equip with automatic production line.

Typical workpieces: motorcycle shaft, motor shaft, printer shaft, duplicator shaft, etc.

主要技术参数

项目	型号	JJCD
主机形式		C型工作台固定式
可校轴外径		$\leq \phi 15\text{mm}$
可校轴长		$\leq 200\text{mm}$
修正点数		1点
测量点数		1点
重复测量精度		$\leq 5\ \mu\text{m}$
测量方式		挺杆或半包容片
工件转速		60rpm
工件定位方式		工件两端中心孔
控制系统		一体化工作站
最大加载能力		30kN
电源		三相 380V 6kVA
主机重量		0.5吨
占地面积		0.8m ²

Specification

Items	Model	JJCD
Mainframe structure		C type mainframe with fixed worktable
Outer diameter of workpieces		$\leq \phi 15\text{mm}$
Length of workpieces		$\leq 200\text{mm}$
Straightening points		1 point
Measuring points		1 point
Repeated measurement accuracy		$\leq 5 \mu\text{m}$
Measurement methods		Tappet or half-rounding envelop blade
Rotation speed of workpieces		60rpm
Locating method of workpieces		Center holes of workpieces
Control system		Integrated workstation
Load capacity		30kN
Power supply		Three-phase 380V 6kVA
Weight of mainframe		0.5 tonnage
Covering area		0.8m ²

7.3.4 JJC 系列通过型机械式自动校直机

7.3.4 Model JJC mechanical shaft automatic straightening machine



产品简介

JJC 系列机械式轴类自动校直机是我公司为适应广大用户需求，基于 JE 系列液压式轴类自动校直机的研发经验，推出的一款高性能自动校直机。该系列产品较 JE 系列液压式轴类自动校直机具有占地面积小，性价比更高的优势。可广泛用于凸轮轴、半轴、齿轮轴、电机转子、活塞杆以及转向器齿条等各种轴类零部件的自动校直，具有测量精度高、操作简单、可适应工件种类多等特点。

执行标准：

GB/T 15706.2-2007/ISO 12100-2:2003 《机械安全 基本概念与设计通则》

Q/CSS23-2006 《轴类自动校直机》

JJC 系列机械式校直机技术优势：

- 机械式自动校直机采用伺服电机做为动力源，控制精度更高，无过冲现象。
- 响应速度更快，提高了校直循环速度。
- 浮动顶尖测量机构，实现一次装夹，中间过程不松开，节省了 20% 的循环时间，且避免了重复定位造成的误差。
- 占地面积小，节省了液压校直机油源的占地空间。
- 噪音低，无液压泄露问题，更利于保持工作现场环境清洁。

Product Introduction

Model JJC mechanical shaft automatic straightening machine is newly designed specially for motorcycle industry on the basis of Model JE hydraulic one. Model JJC produced for the automobile industry for cam shafts, axle shafts, gear shafts, motor rotor, piston rod gear selector forks. With features of high precision, easy to use cost-efficiency.

All process including measuring, positioning, straightening Go/No judgment could be done automatically, what is operator only do is to load/unload workpiece press the button "ON".

Features:

- The machine is servo-mechanically controlled with high accuracy efficiency.
- Translation turning centre reduce the straightening schedule.
- Embedded type controlling system basis on ARM7, easy to use low failure rate
- Smaller cleaner
- forces available from 60kN to 100kN
- High reliable accuracy controlling system
- One-key operation, all process could be done automatically

JJC 系列机械式自动校直机主要特性：

- 高可靠性、高精度的测量系统
- 高速的数据采集单元可以完成精确的数据采样
- 采用浮动式回转中心，测量及修正时无需反复夹持，

提高了生产节拍

- 相对于液压式校直机，性价比更高，占地面积更小，更清洁，安全可靠

- 多种电气、机械、软件保护机制，最大限度保障生产安全

- 最大修正量限制设定，有效保护工件不会被过量修正而压断或压裂，保证工作安全

- 多种可供选择的部件，
- 可适应多种工件，平均换型时间 < 10 分钟
- 一键式操作，全程自动完成
- 同时具备手动调整功能，可分别操作各个动作单元
- 友好的人机界面，工件弯曲量数字显示及柱状图直观显示，修正量的自适应调整系统，人性化管理，

- 全开放的校直参数设定界面——根据需要随时调整运行参数。

- 操作软件基于中文 Windows 系统平台，通过直观的图文显示，修正过程信息可动态观察

- 自动诊断一般故障所在部位
- 具有打印输出单元，可以打印设备的运行参数、校直情况等信息，智能化模式，友好的人机界面

- 修正量的自适应调整系统
- 全方位模拟人工校直方法
- 优先选择校直点，设定各测量点的校直次序
- 自动判别工件是否满足公差要求，给出声光指示

JJC 系列机械式自动校直机可校直工件种类：

- 可矫直工件种类有：半轴、齿轮轴、齿轮齿条动力转向器、齿条、光棒、电动工具转子轴、电机转子、活塞杆、扭杆、气阀、曲轴、输入轴、丝杠、凸轮轴、小齿轮、转向器齿条等。

- 通过对轴类部件的旋转，测出测量点的误差，根据该轴数学模型自动对某点压至某一行程。反复对所有测量点进行该过程，直至误差达到合格范围。广泛用于凸轮轴、半轴、中间轴、电机轴、输入轴、输出轴、齿条等轴类零部件的热处理后校直，测量重复精度为 5 μm，显示分辨率 1 μm，校直精度可达 0.015mm，根据工件不同，校直效率平均 60 件 / 小时，部分可达 10 秒 / 件。

- Automatically correction adjustment system
- Friendly operator interface
- Other application for choice

Configurations:

- Load Frame

The machine is C type load frame with pressure-head fixed. It is mechanically controlled with servo motor, toothed belt reinforced in ball screw. Smaller in size lighter in weight.

- Servo Controlling System

Thanks to the servo controlling system produced Belgium, the machine can rapidly finish straightening process with high accuracy.

- Pneumatic Controlling System The pneumatic controlling system is used to do the straightening action such as gripping positioning. And the position switch is as the feedback signal ,which is helpful to finish the process quickly.

- Workpiece Radical Run-out Measuring System This system includes mechanical lever amplifying servomechanism, high-accuracy angular displacement sensor, motor measuring probe.

- PLC

PLC is the key system. All straightening actions such as gripping, measuring correction could make under its control.

And experienced customer could program it according to their special request.

- Computer System

Data acquisition analysis, to make sure the straightening position correction.

User's clearly friendly interface

through computer screen. Result could be printed out.

is the symbol for qty. of measuring point compression point.

Straightening accuracy: Accuracy available from 0.02-0.10mm which is subject

to different workpiece.

Display resolution: 0.001mm

Max.workpiece qty.: 200 different types

Average tact: 30-240 pieces/hour.

主要技术参数

项目 \ 型号	JJC10	JJC30	JJC50
主机型式	C 型工作台固定式		
可校轴外径	ϕ 3mm- ϕ 20mm		
可校直轴长	\leq 500mm		
修正点数	1-3 点		
测量点数	1-3 点		
重复测量精度	5 μ m		
测量方式	圆棒、包容片、标准齿轮		
工件转速	60rpm		
工件定位方式	工件两端中心孔或两端外圆		
控制系统	工业一体化工作站		
最大加载能力	100KN	300KN	500KN
电源	AC 220V		
主机重量	1.3 吨	2.0 吨	2.5 吨

Specification

Item	Model	
	JJC/6**	JJC/10**
Load frame type	C type(fixed)	C type(translation)
Max. shaft outside diameter	ϕ 3mm- ϕ 18mm	$\leq \phi$ 25 mm
Max. shaft length	\leq 300mm	\leq 500mm
Correction point	1-3	1-3
Measuring point	1-3	1-3
Repeat accuracy	\leq 0.005mm	\leq 0.005mm
Measuring Method	bar、contained shred、master gear	
Workpiece speed	60rpm	
Workpiece positioning way	Workpiece centre or excircle at both sides	
Controlling system	Integrated industrial workstation	
Max. load capacity	60kN	100kN
Power	AC 220V	AC 380V
Weight of load frame	1.2 ton	1.5ton

7.3.5 JJC 系列标准型机械式自动校直机 7.3.5 JJC series automatic straightening machine (mechanical)



产品简介

JC 系列机械式轴类自动校直机是我公司为适应广大用户需求，基于 JE 系列液压式轴类自动校直机的研发经验，推出的一款高性能自动校直机。该系列产品较 JE 系列液压式轴类自动校直机具有占地面积小，性价比更高的优势。可广泛用于凸轮轴、半轴、齿轮轴、电机转子、活塞杆以及转向器齿条等各种轴类零部件的自动校直，具有测量精度高、操作简单、可适应工件种类多等特点。

执行标准：

GB/T 15706.2-2007/ISO 12100-2:2003 《机械安全 基本概念与设计通则》

Q/CSS23-2006 《轴类自动校直机》

JJC 系列机械式校直机技术优势：

- 机械式自动校直机采用伺服电机做为动力源，控制精度更高，无过冲现象。
- 响应速度更快，提高了校直循环速度。
- 浮动顶尖测量机构，实现一次装夹，中间过程不松开，节省了 20% 的循环时间，且避免了重复定位造成的误差。

Product Introduction

Product standards:

GB/T 15706.2-2007/ISO 12100-2:2003 «Machinery Safety. Basic Concept General Rules of Design »

Q/CSS23-2006 «Shaft Automatic Straightening Machine»

Technical advantages:

JJC series auto straightening machine adopt servo motor as power source which can get a higher control precision without overshoot problem.

Faster response speed enhances circling speed of straightening process.

With the floating live centers, the machine can clamp workpieces without loosening, which can save more than 20% working time avoid error caused by repeated locating process.

Main features of JJC series mechanical automatic straightening machine:

Measuring system with high reliability high precision

High speed data acquisition unit enables accurate data sampling.

Floating rotating center It can clamp workpieces without loosening during measuring straightening processes, thus increases its working frequency

- 占地面积小，节省了液压校直机油源的占地空间。
- 噪音低，无液压泄露问题，更利于保持工作现场环境清洁。

JJC 系列机械式自动校直机主要特性：

- 高可靠性、高精度的测量系统
- 高速的数据采集单元可以完成精确的数据采样
- 采用浮动式回转中心，测量及修正时无需反复夹持，提高了生产节拍
- 相对于液压式校直机，性价比更高，占地面积更小，更清洁，安全可靠
- 多种电气、机械、软件保护机制，最大限度保障生产安全
- 最大修正量限制设定，有效保护工件不会被过量修正而压断或压裂，保证工作安全
- 多种可供选择的部件
- 可适应多种工件，平均换型时间 < 10 分钟
- 一键式操作，全程自动完成
- 同时具备手动调整功能，可分别操作各个动作单元
- 友好的人机界面，工件弯曲量数字显示及柱状图直观显示，修正量的自适应调整系统，人性化管理。
- 全开放的校直参数设定界面——根据需要随时调整运行参数。
- 操作软件基于中文 Windows 系统平台，通过直观的图文显示，修正过程信息可动态观察
- 自动诊断一般故障所在部位
- 具有打印输出单元，可以打印设备的运行参数、校直情况等信息，智能化模式，友好的人机界面
- 修正量的自适应调整系统
- 全方位模拟人工校直方法
- 优先选择校直点，设定各测量点的校直次序
- 自动判别工件是否满足公差要求，给出声光指示

JJC 系列机械式自动校直机可校直工件种类：

- 可矫直工件种类有：半轴、齿轮轴、齿轮齿条动力转向器、齿条、光棒、电动工具转子轴、电机转子、活塞杆、扭杆、气阀、曲轴、输入轴、丝杠、凸轮轴、小齿轮、转向器齿条等。

● 通过对轴类部件的旋转，测出测量点的误差，根据该轴数学模型自动对某点压至某一行程。反复对所有测量点进行该过程，直至误差达到合格范围。广泛用于凸轮轴、半轴、中间轴、电机轴、输入轴、输出轴、齿条等轴类零部件的热处理后校直，测量重复精度为 $5\mu\text{m}$ ，显示分辨率 $1\mu\text{m}$ ，校直精度可达 0.015mm ，根据工件不同，校直效率平均 60 件 / 小时，部分可达 10 秒 / 件。

Comparing with hydraulic straightening machine, this JJC machine has advantages of high cost performance, less floor space, cleaner, more safe reliable.

The machine has multiple protective mechanisms for electric, machinery software to offer utmost safety during production.

The max. correction limit function can protect workpieces from fracture caused by over-correction.

Various optional functional units.

Versatile for many kinds of workpieces. Averaged changing time <10min.

The whole straightening process can be done automatically by one-key operation.

It also has manual adjustment function which can operate each action unit separately.

A friendly man-machine interaction interface can show bending value of workpieces by digital or bar chart display.

Fully opened straightening parameters setting interface – it can adjust operating parameters any time as required.

The operation software is based on MS Windows system; all straightening process can be observed dynamically.

The machine has auto diagnosis function.

The machine is equipped with print output unit that can print operation parameters, straightening conditions other information out.

It has self-adaption & adjustable system of correction value.

The machine imitates manual straightening methods.

The machine has straightening point selection function that can set straightening sequence of measurement points.

After straightening process, the straightening machine can judge automatically if the workpieces qualified give sound & visual indication accordingly.

Typical workpieces:

Half shaft, gear shaft, power steering gears of gear rack, gear rack, finished round bar, rotor shaft of electric tools, rotor, piston rod, torsion bar, air valve, crankshaft, input shaft, ball screw, camshaft, pinion, rack of steering gear, etc.

The machine can be widely used for the straightening of camshaft, half shaft, counter shaft, motor shaft, input shaft, output shaft, gear rack other shaft parts after heat treatment. The max. repeated measurement accuracy can be $5\mu\text{m}$, display resolution $1\mu\text{m}$, straightening accuracy 0.015mm . Averaged straightening efficiency is 60pcs/h. For some special workpieces, the efficiency can reach 10s/pcs.

主要技术参数

项目 \ 型号	JJC10	JJC30	JJC50
主机型式	C型工作台固定式		
可校轴外径	φ 3mm- φ 20mm		
可校直轴长	≤500mm		
修正点数	1-3 点		
测量点数	1-3 点		
重复测量精度	5μm		
测量方式	圆棒、包容片、标准齿轮		
工件转速	60rpm		
工件定位方式	工件两端中心孔或两端外圆		
控制系统	工业一体化工作站		
最大加载能力	100KN	300KN	500KN
电源	AC 220V		
主机重量	1.3 吨	2.0 吨	2.5 吨

Specification

Items	Model		
	JJC10	JJC30	JJC50
Mainframe structure	C type mainframe with fixed workable.		
Outer diameter of workpieces	φ 3mm- φ 20mm		
Length of workpieces	≤500mm		
Straightening points	1~3 points		
Measuring points	1~3 points		
Repeated measurement accuracy	5um		
Measurement methods	Round rod, half rounding envelop blade, stard gear.		
Rotating speed of workpieces	60r/m		
Locating method of workpieces	Center holes of both two ends or outer circles of workpieces		
Control system	Industrial integrated workstation		
Loading capacity	100KN	300KN	500KN
Power supply	AC 220V		
Weight of mainframe	1.3t	2.0t	2.5t

7.3.6 JEC 系列自动校直机

7.3.6 JE series automatic straightening machines (hydraulic)



产品简介

JEC 系列自动校直机是针对轴杆类产品在热处理后发生弯曲变形而设计的自动检测校直装置，它是一种集机械、电气、液压、气动、计算机测控分析为一体的高科技产品，具有优良技术性能，集中体现在测量精度高，生产节拍快，工件适应能力强等优点，对轴杆类工件的纯圆截面、D 型截面以及齿轮或花键的分度圆等部位的径向跳动可实现准确测量。

执行标准：

GB/T 15706.2-2007/ISO 12100-2:2003 《机械安全 基本概念与设计通则》

Q/CSS23-2006 《轴类自动校直机》

该设备具备：

- 操作简单易学、测量精度高、可适应多种工件等特点。

- 在自动校直过程中，操作者只需操作工件的装卸以及“自动启动”按钮开关，工件的弯曲度测量、校直点定位、加压校直以及弯曲度检查等动作全部由校直机自动完成，这在很大程度上保证了测量结果的准确性，提高了生产效率，同时减轻了操作者的劳动强度。

Product Introduction

JE series automatic straightening machine is usually applied for straightening of shaft which with bending deformation caused by heat treatment. It is a kind of high – tech. product integrated machinery, electric, hydraulic pressure, pneumatic, computer measuring control analysis technologies in one. It has advantages of high measuring precision & working frequency, good adaptability, can measure run-out value of shaft round cross section, D type cross section, gear or spindle pitch circle section accurately.

Product standards:

GB/T 15706.2-2007/ISO 12100-2:2003 «Machinery Safety. Basic Concept General Rules of Design »

Q/CSS23-2006 «Shaft Automatic Straightening Machine»

Product functions:

Easy operation, high measurement accuracy good versatility to various workpieces.

During the auto straightening process, the only thing needs to be done by operator is to load & unload workpieces press “automatic start” button, then all processes, such as, measuring of bending parts, locating of straightening points, pressing bending inspection will all be done automatically by the straightening machine. In this way, it can

● 该产品具有设定最大修正量限制的功能，有效地保护工件不会被过量修正而压断或压裂，从而保证工作安全。

● 具有工件的弯曲量数字显示及柱状图直观显示功能，全中文的人机对话界面美观、清新，方便了操作人员学习、操作。

● 测控软件具有自适应功能，可以根据工件弯曲量的不同自动调整修正量大小，以适应工件弯曲度不同对校直行程的不同要求，全方位模拟人工校直方法。

● 具有优先校直点选择功能，可以设定各测量点的校直次序。

● 自动校直工作循环完成后，校直机能自动判别工件是否满足公差要求，并给出声光指示。

● 可存储 200 种以上工件的超大型数据库系统，完全满足用户生产需求。

● 操作软件基于中文 Windows 系统平台，采用大屏幕液晶显示器作为人机对话窗口，通过直观的图文显示，修正过程信息可动态观察。

● 具有自动诊断一般故障所在部位的指示功能，方便了设备维护。

● 具有打印输出单元，可以打印设备的运行参数、校直情况等信息。

J E C 系列轴类自动校直机主要特性：

● 高可靠性、高精度的测量系统，测量重复精度 $5\mu\text{m}$ 、显示分辨率 $1\mu\text{m}$ 。

● 修正量的自适应调整系统，自动分析计算修正量。

● 简洁的工件夹持定位装置，用户可快速方便地调整工装。

● 友好的人机对话界面，较好地实现了操作者与设备的人机交互。

● 必要的人与设备安全防护措施。

● 多种可供选择的的功能部件：

● 声发射裂纹检测装置 AE；

● 实现全自动生产的自动送料带。

● 辅助上下料机械手；

● 研磨中心孔机构

● 可达每小时 30—180 件的高校直生产效率，实际工作效率由工件的不同精度要求决定。

results, increase production efficiency, reduce labor intensity greatly.

The machine has max. correction limit function, which can protect workpieces from breaking or fracturing caused by over-correction.

It has digital display bar chart visual display functions to show bending value of the workpieces..

The software has self-adaption function which would adjust correction value automatically, thus to fulfill different straightening stroke dems for the workpieces with different bending value.

The machine with straightening points select function can set straightening sequence of measurement points.

After straightening process, the machine will qualify workpieces automatically give sound visual indication to operator.

With large database storing system, it can record more than 200 kinds of workpieces' parameters to fully meet the users' dems.

The operating software runs under Windows system. Taking big LCD monitor as man-machine interaction interface, it can show all related parameter realize dynamic observation of straightening.

The machine has auto diagnosis function which makes maintenance of equipment easier.

The machine is equipped with printer that can print operating parameters, straightening condition other information out.

Main features of JE series auto shaft straightening machine

Measurement system of the machine features with high reliability precision. The measurement repeatability precision is up to $5\mu\text{m}$ display resolution is $1\mu\text{m}$.

Correction value of workpieces can be analyzed calculated automatically by self-adaptation adjustment system.

Friendly man-machine interaction interface.

Comprehensive safety preventive protection for both operator machine.

Various optional components with different functions:

Acoustic emission crack detection equipment (AE);

Auto feeding belt for automated production;

Manipulator robot arm to assist feeding blanking;

Center hole grinding & cleaning unit;

With high straightening efficiency, the machine can straight 30~180 pcs workpieces per hour (depends on different straightening accuracy requested by customer).

主要技术参数

项目 \ 型号	JEC30	JEC50	JEC80	JEC100
主机型式	C 型			
可校轴外径	φ 30~ φ 45	φ 40~ φ 60	φ 50~ φ 80	φ 60~ φ 90
可校轴长	≤1000mm			
修正点数	≤5			
测量点数	≤5			
测量精度	±5 μ m			
测量方式	圆棒、半包容式测量片、标准齿轮			
工件转速	30~120r.p.m			
工件定位方式	工件两端顶尖孔或外圆基准			
控制系统	工业一体化工作站（数据采集及处理） PLC（控制单元）			
最大加载能力	300KN	500KN	800KN	1000KN
电 源	三相 380V 15KVA			
主机重量	2.0 吨	2.5 吨	3.6 吨	4.0~4.5 吨

Specification

Items \ Model	JEC30	JEC50	JEC80	JEC100
Mainframe structure	C type			
Outer diameter of workpieces	φ 30~ φ 45	φ 40~ φ 60	φ 50~ φ 80	φ 60~ φ 90
Length of workpieces	≤1000mm			
Straightening points	≤5			
Measuring points	≤5			
Measurement accuracy	± 5 μ m			
Measuring methods	Measuring leverage, half-rounding envelop blade, stard gear			
Rotation speed of workpieces	30 ~ 120 r/m			
Locating method of workpieces	Center holes or outer circles of workpieces			
Control system	Industrial integrated workstation (data acquisition process) PLC (control unit)			
Load capacity	300KN	500KN	800KN	1000KN
Power supply	Three-phase 380V 15KVA			
Weight of mainframe	2.0t	2.5t	3.6t	4.0~4.5t

Note: Customized product is available according to customer's requiremen.

7.3.7 JEM 系列自动校直机

7.3.7 JEM series automatic straightening machines (hydraulic)



产品简介

JEM 系列自动校直机是针对轴杆类产品在热处理后发生弯曲变形而设计的自动检测校直装置，它是一种集机械、电气、液压、气动、计算机测控分析为一体的高科技产品，具有优良技术性能，集中体现在测量精度高，生产节拍快，工件适应能力强等优点，对轴杆类工件的纯圆截面、D 型截面以及齿轮或花键的分度圆等部位的径向跳动可实现准确测量。

执行标准：

GB/T 15706.2-2007/ISO 12100-2:2003 《机械安全 基本概念与设计通则》

Q/CSS23-2006 《轴类自动校直机》

该设备具备：

- 操作简单易学、测量精度高、可适应多种工件等特点。

- 在自动校直过程中，操作者只需操作工件的装卸以及“自动启动”按钮开关，工件的弯曲度测量、校直点定位、加压校直以及弯曲度检查等动作全部由校直机自动完成，这在很大程度上保证了测量结果的准确性，提高了生产效率，同时减轻了操作者的劳动强度。

Product Introduction

JEM series automatic straightening machine is usually applied for straightening of shaft which with bending deformation caused by heat treatment. It is a kind of high – tech. product integrated machinery, electric, hydraulic pressure, pneumatic, computer measuring control analysis technologies in one. It has advantages of high measuring precision & working frequency, good adaptability, can measure run-out value of shaft round cross section, D type cross section, gear or spindle pitch circle section accurately.

Product standards:

GB/T 15706.2-2007/ISO 12100-2:2003 «Machinery Safety. Basic Concept General Rules of Design »

Q/CSS23-2006 «Shaft Automatic Straightening Machine»

Product functions:

Easy operation, high measurement accuracy good versatility to various workpieces.

During the auto straightening process, the only thing needs to be done by operator is to load & unload workpieces press “automatic start” button, then all processes, such as, measuring of bending parts, locating of straightening points, pressing bending inspection will all be done automatically by the straightening machine. In this way, it can

● 该产品具有设定最大修正量限制的功能，有效地保护工件不会被过量修正而压断或压裂，从而保证工作安全。

● 具有工件的弯曲量数字显示及柱状图直观显示功能，全中文的人机对话界面美观、清新，方便了操作人员学习、操作。

● 测控软件具有自适应功能，可以根据工件弯曲量的不同自动调整修正量大小，以适应工件弯曲度不同对校直行程的不同要求，全方位模拟人工校直方法。

● 具有优先校直点选择功能，可以设定各测量点的校直次序。

● 自动校直工作循环完成后，校直机能自动判别工件是否满足公差要求，并给出声光指示。

● 可存储 200 种以上工件的超大型数据库系统，完全满足用户生产需求。

● 操作软件基于中文 Windows 系统平台，采用大屏幕液晶显示器作为人机对话窗口，通过直观的图文显示，修正过程信息可动态观察。

● 具有自动诊断一般故障所在部位的指示功能，方便了设备维护。

● 具有打印输出单元，可以打印设备的运行参数、校直情况等信息。

JE 系列轴类自动校直机主要特性：

● 高可靠性、高精度的测量系统，测量重复精度 5 μm、显示分辨率 1 μm。

● 修正量的自适应调整系统，自动分析计算修正量。

● 简洁的工件夹持定位装置，用户可快速方便地调整工装。

● 友好的人机对话界面，较好地实现了操作者与设备的人机交互。

● 必要的人与设备安全防护措施。

● 多种可供选择的部件：

- 1) 声发射裂纹检测装置 AE;
- 2) 实现全自动生产的自动送料带。
- 3) 辅助上下料机械手;
- 4) 研磨中心孔机构

● 可达每小时 30—180 件的高校直生产效率，实际工作效率由工件的不同精度要求决定。

ensure the precision of measurement

results, increase production efficiency, reduce labor intensity greatly.

The machine has max. correction limit function, which can protect workpieces from breaking or fracturing caused by over-correction.

It has digital display bar chart visual display functions to show bending value of the workpieces..

The software has self-adaption function which would adjust correction value automatically, thus to fulfill different straightening stroke dems for the workpieces with different bending value.

The machine with straightening points select function can set straightening sequence of measurement points.

After straightening process, the machine will qualify workpieces automatically give sound visual indication to operator.

With large database storing system, it can record more than 200 kinds of workpieces' parameters to fully meet the users' dems.

The operating software runs under Windows system. Taking big LCD monitor as man-machine interaction interface, it can show all related parameter realize dynamic observation of straightening.

The machine has auto diagnosis function which makes maintenance of equipment easier.

The machine is equipped with printer that can print operating parameters, straightening condition other information out.

Main features of JEM series auto shaft straightening machine
 Measurement system of the machine features with high reliability precision. The measurement repeatability precision is up to 5μm display resolution is 1μm.

Correction value of workpieces can be analyzed calculated automatically by self-adaptation adjustment system.

Friendly man-machine interaction interface.

Comprehensive safety preventive protection for both operator machine.

Various optional components with different functions:

Acoustic emission crack detection equipment (AE);

Auto feeding belt for automated production;

Manipulator robot arm to assist feeding blanking;

Center hole grinding & cleaning unit;

With high straightening efficiency, the machine can straight 30~180 pcs workpieces per hour (depends on different straightening accuracy requested by customer).

主要技术参数

主机型式	JEM20	JEM30	JEM40
主机型式	门型		
可校轴外径	$\phi 20 \sim \phi 40$	$\phi 30 \sim \phi 45$	$\phi 35 \sim \phi 55$
可校轴长	$\leq 1000\text{mm}$		
修正点数	≤ 5		
测量点数	≤ 5		
测量精度	$5 \mu\text{m}$		
测量方式	圆棒 包容式测量片 标准齿轮		
工件转速	30-120rpm		
工件定位方式	工件两端顶尖孔和外圆基准		
控制系统	工业一体化工作站(数据采集及处理) PLC (控制单元)		
最大加载能力	200KN	300KN	400KN
电 源	三相 380V 15KVA		
主机重量	1.8 吨	3.0 吨	3.0 吨

Specification

Model	JEM20	JEM30	JEM40
Mainframe structure	Door type		
Outer diameter of workpieces	φ 20~ φ 40	φ 30~ φ 45	φ 35~ φ 55
Length of workpieces	≤1000mm		
Straightening points	≤5		
Measuring points	≤5		
Measurement accuracy	5 μ m		
Measurement methods	Measuring leverage, half-rounding envelop blade, stard gear		
Rotation speed of workpieces	30-120r/m		
Locating method of workpieces	Center holes or outer circles of workpieces		
Control system	Industrial integrated workstation (data acquisition treatment) PLC (control unit)		
Loading capacity	200KN	300KN	400KN
Power supply	Three-phase 380V 15K V A		
Weight of mainframe	1.8t	3.0t	3.0t

Note: Customized product is available according to customer's requirement.

7.3.8 JES 系列液压式手自动一体式校直机 7.3.8 JES series big tonnage hydraulic semi-automatic straightening machine



产品简介

JES 系列大吨位液压式手 / 自动一体校直机

JES 系列大吨位液压式手动 / 自动一体校直机是我公司针对广大企业用户的生产需求推出的一款高性能的集手动 / 自动于一体的机型，结合世界先进的校直机设计理念，是半自动校直机革命性的产品。该系列校直机可广泛应用于大型轴类零部件的校直，能够实时检测测量点轴跳动，是大型轴杆类零件企业的首选校直设备。主要校直机产品：毛坯料、活塞杆、半轴、缸筒、钻杆等。

执行标准：

GB/T 15706.2-2007/ISO 12100-2:2003 《机械安全 基本概念与设计通则》

Q/CSS23-2006 《轴类自动校直机》

主要特点：

- 自动旋转测量。
- 传感器自动测量各测量点的跳动量，数字显示各测量点测量值。
- 手动模式下用液压伺服随动加载控制代替传统压力控制。
- 设备具有自动校直功能。

Product Introduction

Typical Workpieces

Rough materials, piston rod, half shaft, cylinder barrel, drill rod, etc.

Product standards:

GB/T 15706.2-2007/ISO 12100-2:2003 «Machinery Safety. Basic Concept General Rules of Design »

Q/CSS23-2006 «Shaft Automatic Straightening Machine»

Main features:

Automatic rotating measuring.

The equipment sensor can measure runout value of each point automatically shows measuring values.

Under manual operating mode, the machine adopts hydraulic servo control instead of traditional pressure control.

Displacement precision is up to 0.01mm.

The pressing head will be stopped when machine goes down due to electricity outage.

The pressing head has stroke limit control function, the limit value is adjustable.

High adaptability.

This machine is a high-end integrated straightening equipment with electric, hydraulic pneumatic technologies in one.

- 加载位移量可控精度 0.01mm。
- 压头在突然断电、设备停机时能够保持静止。
- 压头具有下限位控制，限位距离可调整。
- 产品适应能力强
- 自动化程度高，集机、电、液、气于一体，属于高端校直设备。
- 可操作性好，独特先进的手动伺服位移控制手段，减少对操作人员素质水平的依赖，易于达到高精度的校直要求。
- 采用按钮点动控制工作台移动位置，定位加载校直点。
- 精心设计的手控杆操作单元控制压头位置，实现完全的位置控制，提高了校直的精度和效率。

The good operability special advanced manual servo displacement control method can reduce reliability to the skill of operator, easier to fulfill high precision straightening requirement.

The operator can control the worktable position by button locate straightening points.

The manual operating rod can realize the position control of pressing head, which increases straightening precision efficiency.

主要技术参数

项目	型号		
	JES300	JES500	JES1000
主机型式	门型四柱机构，工件可移动		
加载方式	液压式		
显示分辨率	0.01mm		
可校轴外径	φ 40 ~ φ 200mm	φ 60 ~ φ 250mm	φ 100 ~ φ 350mm
可校轴长度	5000~2500mm (可扩展)	1000~2500mm (可扩展)	1500~3500mm (可扩展)
测量点数	1-5 点	1-5 点	1-5 点
测量方式	杠杆放大式测量		
工件定位方式	中心孔或滚轮摩擦驱动		
最大加载能力	3000KN	5000KN	10000KN
电源	AC380V	AC380V	AC380V

Specification

Items \ Model	JES300	JES500	JES1000
Mainframe type	Door type with four columns. Workpieces are movable.		
Loading mode	Hydraulic		
Display resolution	0.01mm		
Outer diameter of workpieces	φ 40 ~ φ 200mm	φ 60 ~ φ 250mm	φ 100 ~ φ 350mm
Length of workpieces	5000~2500mm (extensible)	1000 ~ 2500mm (extensible)	1500 ~ 3500mm (extensible)
Measuring points	1-5	1-5	1-5
Measurement method	Lever amplification		
Location method of workpieces	Driven by center holes or roller wheels		
Load capacity	3000KN	5000KN	10000KN
Power supply	AC380V	AC380V	AC380V

7.3.9 JJBC 系列机械式半自动校直机

7.3.9 JJBC series mechanical semi-automatic straightening machine



产品简介

JJBC 系列机械式半自动校直机是我公司针对广大中小企业用户的生产需求推出的一款高性能的半自动校直机，该机型基于我公司 JJC 系列机械式自动校直机的成功研发经验，结合世界先进的校直机设计理念，是半自动校直机革命性的产品。该系列校直机具有能源清洁、占地面积小、性价比高、通用性强等特点，可广泛应用于用于半轴、齿轮轴、光轴、转子、活塞杆、扭杆、气门、曲轴、丝杠、凸轮轴以及转向器齿条等各种轴杆类零部件的校直，是大批量、多品种的轴杆类零件的生产企业首选的半自动校直机产品。

执行标准：

GB/T 15706.2-2007/ISO 12100-2:2003 《机械安全 基本概念与设计通则》

Q/CSS23-2006 《轴类自动校直机》

技术优势：

采用国内首创的伺服电机加载方式，设备加载控制精度高，定位精准。

手动操作手柄与伺服电机协调动作，响应速度快、无延时、无过冲，最大限度提高校直速度和校直效率。

精心设计的杠杆式测量机构（可选）可以直观观察零

Product Introduction

Product starts:

GB/T 15706.2-2007/ISO 12100-2:2003 «Machinery Safety. Basic Concept General Rules of Design »

Q/CSS23-2006 «Shaft Automatic Straightening Machine»

Main features:

Load workpieces manually. User can control loading stroke of servo motor by operating hle. (the software has stroke protection function.)

The servo motor drives ball-screw by gear reducer for loading which features with high transmission efficiency, low noise, stable transmission no vibration.

The machine adopts mechanical leverage for measurement. The measuring value can be showed by dial indicator; the measuring position can be set at users' will conveniently.

The machine has compressing stroke limit function which can protect workpieces from breaking or fracture caused by overload.

The machine features with easy operation & learning, versatility for different workpieces.

The machine uses servo motor instead of hydraulic loading system, which can ensure cleanness of power supply, reduce noise enhance its reliability.

Worktable with special design enhances operability.

件跳动情况，校直过程中无需调整百分表位置，方便操作，提高校直效率。

整机占地面积小、噪音低，能源清洁，无液压泄露等传统手动校直机存在的问题。

操作简单易学，台上工装更换简便，适用于多种工件的经常性切换。

选配专用工装，可以检测零件不规则位置（齿轮节圆、花键等）的径向跳动。

独特的支承方式，可有效避免校直过程中对零件表面的损伤。

通过软件及电气限制、最大限度避免工件压裂、保证操作安全巧妙的行程微调手柄设计，可在设定最大行程基础上进行一定比例的行程增加。

主要特点：

加载方式采用人工手动加载，由操作手柄控制伺服电机加载行程。（软件设定保护行程）

伺服电机通过减速箱带动高精度滚珠丝杠加载，传动效率高，噪音低，传动平稳无震动。

压头控制方式为位置控制，通过手动控制的操作手柄的位置来控制压头下压量，实现精确控制压头位置，提高校直的精度及效率。

测量部分采用机械式杠杆测量方式，由百分表读出测量值，可随意设置测量位置，操作方便。

设备具有最大下压量限制的功能，有效地保护工件不会被过量加载而压断或压裂，从而保证工作安全。

该设备具有操作简单易学，可适应多种工件等特点。

以伺服电机代替液压加载系统，保证能源清洁，降低噪声，提高了可靠性。

独特的工作台细节设计方式，提高了可操作性。

精心设计的手控杆操作单元控制压头位置，实现完全的位置控制，提高了校直的精度和效率。

多种安全保障机制，有效保护操作者的工作安全，同时提高设备使用年限。

可校直工件种类：

可校直工件种类有：半轴、齿轮轴、光轴、电动工具转子、电机转子、活塞杆、扭杆、气阀、曲轴、丝杠、凸轮轴等各种轴杆类零件。

The manual operating rod can realize the positioning control of pressing head, which can increase straightening precision efficiency.

Various safety devices can protect operator increase the service life of the equipment.

Typical Workpieces:

Half shaft, gear shaft, finished round bar, rotor of electric tool, rotor, piston rod, torsion shaft, air valve, crankshaft, ball screw, camshaft, etc.

主要技术参数

项目 \ 型号	JJBC10	JJBC30
主机型式	C型工作台可移动式	C型工作台可移动式
加载方式	机电式	机电式
可校轴外径	Φ10-Φ30mm	Φ30-Φ50mm
可校轴长度	500mm (可扩展)	500mm (可扩展)
测量点数	1-3点 (可扩展)	1-3点 (可扩展)
测量方式	百分表直接测量或杠杆传动测量	百分表直接测量或杠杆传动测量
工件定位方式	工件两端中心孔	工件两端中心孔
最大加载能力	100kN	300kN
电源	AC380V	AC380V
主机重量	1.5吨	2.2吨
占地面积	2m ²	3m ²

Specification

Items \ Model	JJBC10	JJBC30
Mainframe type	C type mainframe with movable worktable.	C type mainframe with movable worktable.
Loading mode	Electromechanical	Electromechanical
Outer diameter of workpieces	Φ 10-Φ 30mm	Φ 30-Φ 50mm
Length of workpieces	500mm (extensible)	500mm(extensible)
Measuring points	1~3 points (extensible)	1~3 points (extensible)
Measurement mode	Measured by dial indicator or lever operation.	Measured by dial indicator or lever operation.
Location mode of workpieces	Center holes of both ends	Center holes of both ends of workpieces
Load capacity	100kN	300kN
Power supply	AC380V	AC380V
Weight of mainframe	1.5 ton	2.2 t
Covering area	2m ²	3m ²

7.3.10 SYDE 系列精密数控电子压装机

7.3.10 SYD series-Precise Electromechanical



产品简介

SYDE 系列精密数控压装机控制采用高性能 PLC 及触摸屏操作结构，该控制结构功能强大、开放、性价比高。力传感器、位移传感器经信号调理模块处理后由 16bit AD 模块进行高速采集。触摸屏作为主要的人机操作部分，具有设备实时数据显示、参数设置、命令的发送等功能。PLC 直接处理外围的安全器件、按键、报警指示灯及工装动作等。PLC 具有很强的灵活性和功能扩展性，运行稳定可靠。

设备功能：

- (1) 具有快进、探测、压装、保压、返回功能；
- (2) 多点压装质量在线判定，判定条件可根据用户要求设置，便于生产质量控制；
- (3) 压装曲线实时显示；
- (4) 有多种压装模式供用户选择；
- (5) 压力信号采集采用高精度信号调理模块和 AD 模块，采集数据稳定、可靠；
- (6) 具有完善的自诊断系统和软硬件保护。包括驱动系统过流、超载、极限保护等；
- (7) 通过触摸屏可根据要求设置设备参数、控制参数、传感器标定等；
- (8) 压装过程分段式控制，控制方式、加载速度、目

Product Introduction

The SYD series-Precise Electromechanical servo correction press-mounting machine is widely used for component parts precision mounting, can fulfill various plate material's punching, coining, correction, riveting, bending, shearing stretching using different tools, it is a wide-range used machine tool. The frame is welded by high strength steel plate, enable it has enough stiffness strength to bear working load, wide working space, very convenience for operation. Through closed-loop control servo motor to drive high precision ball screw to achieve accurate displacement, can realize full course displacement control, equipped with high sensitivity force sensor can obtain precision force-replacement curve.

equipment function

1. Whole process stepless speed variation precise press mounting , with fast forward, detection, press mounting , holding pressure, return function
2. Online adjust press mounting quality, set adjust criteria freely, convenient for quality control
3. Show press mounting curve in real time
4. 7 modes for choose: 1). Constant speed press mounting , set position to stop, 2) constant speed press mounting , set pressure to stop, 3) constant speed press mounting , set displacement to stop, 2) constant speed press mounting , I/O trigger a stop, 5) pressure/displacement, double section control, 6) pressure/pressure, double section control, 7) pressure/position, double section control
5. Pressure acquisition adopts nonlinearity correction technology, take measuring on whole course to increase force sensor's precision usage

标值可灵活设置；

(9) 人机界面美观、人性化，具有分级权限管理；

(10) 具有参数存储功能，更换工装后，不用重新设置参数，直接选择存储的参数即可；

(11) 设备自动关闭启动功能，在设备未运行超过设定时间后，自动关闭启动；

(12) 具有完善的安全保护措施。

scope, can fulfill high precision measurement.

6. Equipped with h control box, can realize stepless speed variation function, convenience to adjust position slightly

7. Perfect self-diagnostic system software hardware protection, can do selfdiagnostic systemically, provide driving system with over-current, over-load limit protection, watchdog circuit protection over-controlled deviation protection, etc.

8. Powerful software based on parameterization design, integrated with sensor specification, mechanism specification, control specification PID specification's setting, revise storage, also combined with powerful real time drawing function.

9. Press mounting process is controlled by sectional type, control mode, loading speed, target value can be set flexible.

10. Controlled by constant speed, constant force, adopt full closed-loop control method, fast reaction, high control precision.

11. Friendly operation interface with different level authority.

12. Parameter storage function, after changing tools, no need to re-set parameter, select stored parameter directly.

13. Curve of press mounting process data can be storage, convenience to data trace.

主要技术参数

型号	SYDE-50	SYDE-100	SYDE-200
压入力(kN)	50	100	200
压装行程 (mm)	350	450	500
快进速度 (mm/s)	0-100	0-100	0-50
压装速度 (mm/s)	0-5	0-5	0-5
喉深(mm)	180	200	240
开口高度(mm)	400	450	500
压力传感器精度 (%Fs)	0.5	0.5	0.5
位移传感器精度 (%Fs)	0.5	0.5	0.5
控制系统	PLC	PLC	PLC
操作高度 (mm)	1050 ± 50	1050 ± 50	1050 ± 50
力保持	10s	10s	10s

Specification

item \ specification	SYD-50	SYD-100	SYD-200
Max force in theory (kN)	50	100	200
Pressing head max. Stroke(mm)	200	300	400
Pressing head descend Max speed	160	140	120
Pressing head ascend Max speed	160	140	120
Detecting speed	0.1-10	0.1-10	0.1-10
Press mounting speed	0.1-5	0.1-5	0.1-5
Worktable size, L X W	450 × 400	550 × 400	650 × 400
Open height	400	600	600
Operate station height	1050	1050	1050
Depth throat	410	410	410
Power source	3P 380VAC 50Hz	3P 380VAC 50Hz	3P 380VAC 50Hz
Motor power	7.5	15	25
weight	750	1100	1800

8 其它产品 8 Other Products

8.1 高低压配电柜系列 8.1 High and low voltage distribution cabinet

8.1.1 KYN19-10 系列户内交流铠装移开式开关柜 8.1.1 KYN19-10 Indoor AC armored away switch cabinet



项 目 Item	单 位 Unit	数 据 Index
额定电压 Voltage voltage	kV	10
最高电压 Ceiling voltage	kV	12
额定电流 Rated current	A	630、1000、
短路电流 Short-circuit current	kA	20\31.5
断路器额定短路关合电流 Rated short-circuit making current for circuit breaker	kA	50,80,100
断路器额定短路分断电流 Rated short-circuit Breaking current for circuit breaker	kA	20,31.5,40
主母线动稳定电流 Main bus-bar dynamic stable current	kA	40,50,80,100,125
主母线热稳定电流(4s) Main bus-bar short time withstand current(4 seconds)	kA	20,25,31.5,40,50
工频耐受电压 Frequency withstand voltage a、隔离断口 isolated clearance	kV	42 48
冲击电压 Surge voltage	KV	75
机械寿命 mechanical life a、真空接触器 vacuum contactor b、真空断路器 vacuum circuit breaker c、接地开关 grounding switch		2000
防护等级 level of protection		外壳 IP4X/内室 IP2X Outside IP4X/inside IP2X
外形尺寸 Outline dimension	mm	800x1500x2300

8.1.2 KYN28-12 系列户内交流铠装移开式开关柜

8.1.2 KYN28-12 Indoor AC armored away switch cabinet



项 目 Item	单位 Unit	数据 Index
额定电压 Voltage voltage	kV	12
最高电压 Ceiling voltage	kV	12
额定电流 Rated current	A	630、1250、2000
短路电流 Short-circuit current	kA	25/31.5
断路器额定短路关合电流 Rated short-circuit making current for circuit breaker	kA	50,80,100
断路器额定短路分断电流 Rated short-circuit Breaking current for circuit breaker	kA	20,31.5,40
主母线动稳定电流 Main bus-bar dynamic stable current	kA	40,50,80,100,125
主母线热稳定电流(4s) Main bus-bar short time withstand current(4 seconds)	kA	16,20,25,31.5,40,50
工频耐受电压 Frequency withstand voltage a、隔离断口 isolated clearance	kv	42 48
冲击电压 Surge voltage	KV	75
机械寿命 mechanical life a、真空接触器 vacuum contactor b、真空断路器 vacuum circuit breaker c、接地开关 grounding switch		20000
防护等级 level of protection		外壳 IP4X/内室 IP2X Outside IP4X/inside IP2X
外形尺寸 Outline dimension	mm	800x1500x2300

8.1.3 KYN61—4.5 系列开关柜

8.1.3 KYN61-4.5switch cabinet



项 目 Item	单 位 Unit	数 据 Index
额定电压 Voltage voltage	kV	40.5
最高电压 Ceiling voltage	kV	42
额定电流 Rated current	A	1250A 1600A
短路电流 Short-circuit current	kA	25KA 31.5KA
断路器额定短路关合电流 Rated short-circuit making current for circuit breaker	kA	50,80,100
断路器额定短路分断电流 Rated short-circuit Breaking current for circuit breaker	kA	20,31.5,40
主母线动稳定电流 Main bus-bar dynamic stable current	kA	1250
主母线热稳定电流(4s) Main bus-bar short time withstand current(4 seconds)	kA	1250
工频耐受电压 Frequency withstand voltage a、隔离断口 isolated clearance	kV	42 48
冲击电压 Surge voltage	KV	75
机械寿命 mechanical life a、真空接触器 vacuum contactor c、接地开关 grounding switch		10000
防护等级 level of protection	kV	IP4x
外形尺寸 Outline dimension	MM	1400×2600×2800

8.1.4 XGN1 系列开关柜

8.1.4 XGN1 switch cabinet



项 目 Item	单位 Unit	数据 Index
额定电压 Voltage voltage	kV	12
最高电压 Ceiling voltage	kV	12
额定电流 Rated current	A	630,1000
短路电流 Short-circuit current	kA	20, 31.5
断路器额定短路关合电流 Rated short-circuit making current for circuit breaker	kA	40, 50, 80
断路器额定短路分断电流 Rated short-circuit Breaking current for circuit breaker	kA	40, 50, 80
主母线动稳定电流 Main bus-bar dynamic stable current	kA	1250
主母线热稳定电流(4s) Main bus-bar short time withstand current(4 seconds)	kA	20, 31.5
工频耐受电压 Frequency withstand voltage		
a、普通断口 Ordinary clearance	kv	42
b、隔离断口 isolated clearance		48
冲击电压 Surge voltage	KV	75
机械寿命 mechanical life		
a、真空接触器 vacuum contactor		2000
b、真空断路器 vacuum circuit breaker		
c、接地开关 grounding switch		
防护等级 level of protection		IP2x
外形尺寸 Outline dimension	MM	1100 × 1200 × 2650

8.1.5 XGN2 系列开关柜 8.1.5 XGN2 switch cabinet



项 目 Item	单位 Unit	数据 Index
额定电压 Voltage voltage	kV	12
最高电压 Ceiling voltage	kV	42
额定电流 Rated current	A	2500
短路电流 Short-circuit current	kA	16\20\25
断路器额定短路关合电流 Rated short-circuit making current for circuit breaker	kA	40, 50, 80
断路器额定短路分断电流 Rated short-circuit Breaking current for circuit breaker	kA	40, 50, 80
主母线动稳定电流 Main bus-bar dynamic stable current	kA	40,50,63,80,100,125
主母线热稳定电流(4s) Main bus-bar short time withstand current(4 seconds)	KA	16,20,25,31.5,40,50
工频耐受电压 Frequency withstand voltage a、普通断口 Ordinary clearance b、隔离断口 isolated clearance	kv	42 48
冲击电压 Surge voltage	KV	75
机械寿命 mechanical life a、真空接触器 vacuum contactor b、真空断路器 vacuum circuit breaker c、接地开关 grounding switch		10000
防护等级 level of protection		IP2X
外形尺寸 Outline dimension	MM	1100×1200×2650

8.1.6 XZG-12 系列户内交流铠装移开式开关柜

8.1.6 XZG-12 Indoor AC armored away switch cabinet



项 目 Item	单位 Unit	数据 Index
额定电压 Voltage voltage	kV	3.6 7.2 12
最高电压 Ceiling voltage	kV	42
额定电流 Rated current	A	2500
短路电流 Short-circuit current	kA	20, 31.5, 40
断路器额定短路关合电流 Rated short-circuit making current for circuit breaker	kA	50, 80, 100
断路器额定短路分断电流 Rated short-circuit Breaking current for circuit breaker	kA	50, 80, 100
主母线动稳定电流 Main bus-bar dynamic stable current	kA	40,50,63,80,100,125
主母线热稳定电流(4s) Main bus-bar short time withstand current(4 seconds)	KA	16,20,25,31.5,40,50
工频耐受电压 Frequency withstand voltage		42
a、普通断口 Ordinary clearance	kv	48
b、隔离断口 isolated clearance		
冲击电压 Surge voltage	KV	75
机械寿命 mechanical life		
a、真空接触器 vacuum contactor		10000
b、真空断路器 vacuum circuit breaker		
c、接地开关 grounding switch		
防护等级 level of protection		IP2X
外形尺寸 Outline dimension	MM	1100×1200×2650

8.1.7 GBL 动力系列开关柜

8.1.7 GBLseries Switch cabinet



项 目 Item	单位 Unit	数据 Index
额定电压 Voltage voltage	V	380
最高电压 Ceiling voltage	V	660
额定电流 Rated current	A	630、2500
短路电流 Short-circuit current	kA	16\20\25
断路器额定短路分断电流 Rated short-circuit Breaking current for circuit breaker	kA	15,30
主母线动稳定电流 Main bus-bar dynamic stable current	kA	40,50,63,80,100,125
主母线热稳定电流(4s) Main bus-bar short time withstand current(4 seconds)	KA	16,20,25,31.5,40,50
工频耐受电压 Frequency withstand voltage a、隔离断口 isolated clearance	kv	42 48
冲击电压 Surge voltage	KV	75
机械寿命 mechanical life a、真空接触器 vacuum contactor b、真空断路器 vacuum circuit breaker c、接地开关 grounding switch		10000
防护等级 level of protection		外壳 IP4X Outside IP4X
外形尺寸 Outline dimension	MM	1100 × 1200 × 2650

8.1.8 GCS 系列开关柜

8.1.8 GCS Switch cabinet



项 目 Item	单位 Unit	数据 Index
额定电压 Voltage voltage	V	380
最高电压 Ceiling voltage	V	660
额定电流 Rated current	A	630\2500
短路电流 Short-circuit current	A	16
主母线动稳定电流 Main bus-bar dynamic stable current	kA	40,50,63,80,100,125
主母线热稳定电流(4s) Main bus-bar short time withstand current(4 seconds)	KA	16,20,25,31.5,40,50
工频耐受电压 Frequency withstand voltage	v	660
冲击电压 Surge voltage	KV	75
机械寿命 mechanical life a、真空接触器 vacuum contactor b、真空断路器 vacuum circuit breaker		10000
防护等级 level of protection		IP4X
外形尺寸 Outline dimension	MM	800 × 1000 × 2200

8.1.9 GGD 系列开关

8.1.9 GGD Switch cabinet



项 目 Item	单位 Unit	数据 Index
额定电压 Voltage voltage	V	380
最高电压 Ceiling voltage	V	660
额定电流 Rated current	A	630,1000,2500
短路电流 Short-circuit current	kA	15\30\50
断路器额定短路关合电流 Rated short-circuit making current for circuit breaker	kA	30,63,105
断路器额定短路分断电流 Rated short-circuit Breaking current for circuit breaker	kA	15,30,50
主母线动稳定电流 Main bus-bar dynamic stable current	kA	40,50,63,80,100,125
主母线热稳定电流(4s) Main bus-bar short time withstand current(4 seconds)	KA	16,20,25,31.5,40,50
工频耐受电压 Frequency withstand voltage	v	660
冲击电压 Surge voltage	KV	75
机械寿命 mechanical life a、真空接触器 vacuum contactor b、真空断路器 vacuum circuit breaker		10000
防护等级 level of protection		IP2X
外形尺寸 Outline dimension	mm	1000 × 600 × 2200

8.1.10 HXGN 系列开关柜

8.1.10 HXGN Switch cabinet



项 目 Item	单位 Unit	数据 Index
额定电压 Voltage voltage	kV	3.6 7.2 12
最高电压 Ceiling voltage	kV	42
额定电流 Rated current	kA	63、80、100
短路电流 Short-circuit current	kA	16\20\25
主母线动稳定电流 Main bus-bar dynamic stable current	kA	40,50,63,80,100,125
主母线热稳定电流(4s) Main bus-bar short time withstand current(4 seconds)	KA	16,20,25,31.5,40,50
工频耐受电压 Frequency withstand voltage a、隔离断口 isolated clearance	kv	42 48
冲击电压 Surge voltage	KV	75
机械寿命 mechanical life a、真空接触器 vacuum contactor b、真空断路器 vacuum circuit breaker c、接地开关 grounding switch		10000
防护等级 level of protection		外壳 IP4X Outside IP4X
外形尺寸 Outline dimension	mm	1000×800×2200

8.2 “Ace”牌剪羊毛定刀片及动刀片

8.2 Fixed and moving shearing blades



冬季刀片
COVER COMB



动刀片
CUTTER



弯齿定刀片
CONCAVE COMB



直齿定刀片
CONVEX COMB

产品简介

自 1991 年起，我们会同澳大利亚和新西兰的专家设计出适合不同品种，不同季节剪毛的定刀片和动刀片。定刀片的宽度范围是 75mm—100mm。定刀片的齿尖 R 范围是 3.5mm—7.5mm。动刀片有 5.00mm，4.5mm，4.1mm，和 3.5mm 四种厚度尺寸。

Product Introduction

We have been exporting combs and cutters to main wool producing areas such as New Zealand, Australia, German, South America and South African since 1991. The annual volume of export takes eighty percent proportion of the annual sales as yet.

8.3 电动剪羊毛机组

8.3 Electric shearing machine



产品简介

“威斯特”牌电动剪羊毛机组

考虑到不同的使用环境，“威斯特”牌电动剪羊毛机组汲取了国际先进技术，设计合理，结构紧凑，适应性强，振动小，温升低。

- ◆ 电压：220V
- ◆ 功率：250W
- ◆ 软轴长度：1.8 米
- ◆ 最大推进速度：0.8 米 / 秒

Product Introduction

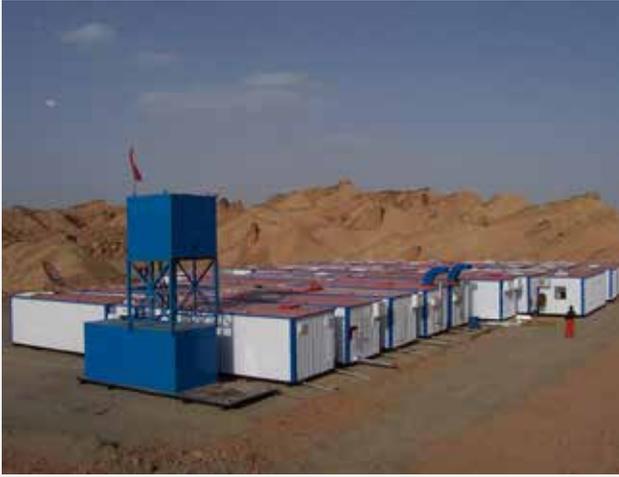
“WESTER” SHEEP SHEAR

Thinking of various operation surroundings, we draw international advance technology and make sheep shear has reasonable design and extensive adapt-ability. It has compactor structure, less vibration, and lower temperature.

- Power supply: 220V power source
- Power rating: 250W
- Length of Flexible Drive: 1.8M
- The biggest advance speed: 0.8M/S

8.4 野外营房系列

8.4 Field barracks



产品简介

野外营房系列产品采用瓦楞钢板、彩钢板制作，墙体瓦楞板全部采用内部焊接，外形美观，外部使用1.2-2mm优质钢板冷加工压形焊接，内部采用优质木料及岩棉、玻璃纤维棉、阻燃型聚苯乙烯材料装饰隔热效果好，房屋内部采用钢骨架，结构牢固，适合长途搬迁。产品广泛应用于新疆三大油田，自治区水利、电力、交通及环保旅游等领域。

Product Introduction

The products are made of corrugated steel sheets and color steel plates, wall corrugated board used in all internal welding, the external quality steel with a 1.2-2mm cold pressure welding shape, made of high quality wood, glass fiber cotton, flame retardant polystyrene decorative materials inside. It has good insulation, house interior with steel frame, solid structure suitable for long distance relocation. The products are widely used in the three Xinjiang Oilfield, water, electricity, transportation, environmental protection and other fields.

8.5 钢桶系列

8.5 Steel drums



产品简介

产品主要有开口桶、闭口桶、锥形桶、镀锌桶等十几个品种，使用美国生产的进口卡兰多焊机和仿意大利涨锥机，配备先进的脱脂、磷化、喷涂、烘干工艺，质量优良，产品广泛应用于化工、食品等行业。

Product Introduction

The major products are open barrels, closed barrels, tapered barrels, galvanized barrels and so on. Made by United States and Italy advanced production equipment, equipped with advanced de-finger, phosphate, spraying, drying technology, excellent quality, The products are widely used in chemical, food and other industries.



扫描关注国机集团国际化经营公众号



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