

# 华工蓝天

## 江苏华工蓝天智能科技有限公司

Jiangsu HG Bluesky Intelligent Technology Co., Ltd.

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# 公司简介

# COMPANY PROFILE

江苏华工蓝天智能科技有限公司(简称"华工蓝天")是"华工激光"子公司,专业提供工业工厂智能化装备高新技术。公司源于中国光谷·武汉,以华中科技大学为技术依托。公司位于江苏省宿迁市宿城区激光产业园内,是园内首批入驻的龙头企业,多次被列为省内重大项目。公司注册资本 1 亿元,拥有现代化生产厂房 15000 平方米,激光科普展示中心 2200 平方米,各类专业技术人员 50 多名。公司拥有国家光电实验室、国家技术中心等技术支持机构,可为广大客户提供工业激光在切割、焊接、微细加工等领域的应用解决方案及其 OEM 产品,是"江苏宿迁激光产业园"的核心企业,也是中国工业激光的国产品牌。公司专门设立激光加工国家工程淮海区域中心,先后接待全国各级政府、海内外客商及各类团体,参观调研 2 万余人次,并成功荣膺"瞪羚培育企业"称号。

武汉华工激光工程有限责任公司(简称"华工激光"),是激光设备及等离子切割设备制造商,也是高科技上市公司华工科技产业股份有限公司(股票代码:000988)旗下核心子公司。华工激光从无到有的发展过程,也是中国工业激光从无到有,从研究到工业化、产业化、规模化的转变过程。从产业布局来看,华工激光在工业激光应用领域是全产业链覆盖;从全球来看,在工业激光领域,华工激光是少有的拥有工业化应用各产业链的企业之一。公司成立之初就致力于提供世界领先的切割系统全面解决方案,是中国著名的激光设备制造商之一,也是全球知名的激光设备及数控精密等离子切割设备提供商。

公司以"为制造的更高荣耀"为企业使命,将继续以客户需求为关注点,不断研究创新,为客户提供优质的产品,实现与合作企业的互利共赢;为中国制造增添荣耀,再创辉煌明天。

Jiangsu HG Blue Sky Intelligent Technology Co., Ltd. (referred to as "HGBlueSky") is a subsidiary company of "HG Laser". It specializes in providing high-tech intelligent equipment for industrial plants. The company originates from Guanggu, Wuhan, China, and relies on Huazhong University of Science and Technology. The company is located in Sucheng Laser Industrial Park, Sugian City, Jiangsu Province. It is the first leading enterprise in the park and has been listed as a major project in the province for many times. The registered capital of the company is 100 million yuan. It has 15,000 square meters of modern production plant, 2200 square meters of laser popular science exhibition center and more than 50 professional and technical personnel. The company has national photoelectric laboratory, national technology center and other technical support institutions, which can provide customers with industrial laser application solutions and OEM products in cutting, welding, micro-processing and other fields. It is the core enterprise of "Sugian Laser Industrial Park in Jiangsu Province", and also the national brand of China's industrial laser. The company has set up the Huaihai Regional Center for Laser Processing, which has received more than 20,000 visits from governments at all levels, businessmen at home and abroad and various groups, and has successfully won the title of "gazelle cultivation enterprise".

Wuhan HG Laser Engineering Co., Ltd.(abbreviated as "HG Laser") is a manufacturer of laser equipment and plasma cutting equipment. It is also a core subsidiary of Huagong Technology Industry Co., Ltd. (Stock Code: 000988), a high-tech listed company. The development process of HG Laser from zero to one is also the transformation process of Chinese Industrial Laser from zero to one, from research to industrialization and scale. From the perspective of industrial layout, Huagong Laser covers the whole industrial chain in the field of industrial laser application. Globally, HG Laser is one of the few enterprises with industrial application chains in the field of industrial laser.

The company takes "for higher glory in manufacture" as its mission, will continue to focus on customer needs, continue to research and innovate, provide customers with high-quality products, achieve mutual benefit and win-win cooperation with enterprises, add glory to Chinese manufacturing, and create a brilliant future.



# 专利证书

PATENT

CERTIFICATE



■ 激光落料实用新型专利证书



■ 激光落料发明专利证书



■ 动态激光切割实用新型专利证书



■ 日本专利保护证书

# 产品介绍

PRODUCT
INTRODUCTION

■ 高速三头激光落料线
High-speed three heads laser blanking line

■ 经济型激光落料线 Economical laser blanking line



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# 高速三头激光落料线

High-speed three heads laser blanking line

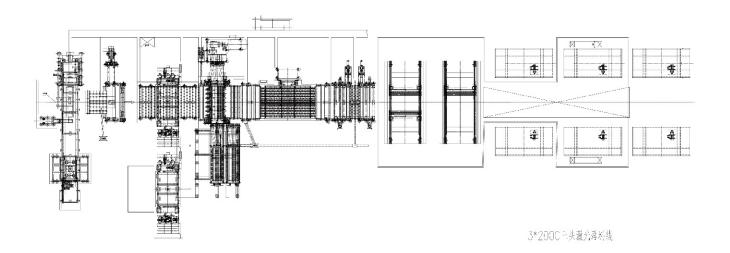
### 产品概述 / Product Overview

我公司于 2012 年开始研发新型的激光切割落 料设备,取得了三项国家实用新型专利,一项 国家发明专利,并且申报了日本、欧盟和美国 的专利保护,我们制造的设备已经在多个用户 投产了使用。

高速三头激光落料线由上料台车、开卷机、清 洗机、校平机、缓冲活套、伺服送料机、三头 激光切割装置、带式动态切割平台、码垛装置、 废料处理系统、液压气动系统及电气控制系统 组成,通过系统控制的激光切割头在激光切割 平台上进行的三维运动切割,代替压力机及模 具,实现对金属带料的自动落料。

Our company began to develop the new laser blanking line in 2012, and has obtained three national utility model patents, one national invention patent, and declared the patent protection of Japan, the European Union and the United States. The equipment we manufactured has been put into use by many users.

High-speed three heads laser blanking line consists of coil car, uncoiler, washing machine, leveler, loop, servo feeder, three heads laser cutting device, dynamic belt cutting platform, stacking device, waste disposal system, hydraulic pneumatic system and electrical control system. The laser cutting head controlled by the system is in the laser. The three-dimensional motion cutting on the cutting platform replaces the press and die to realize the automatic blanking of metal strip.



设备示意图 The drawing of equipment

#### 产品特点 / Characteristics



#### 设备投资低

Low equipment investment

与现有大型落料生产设备相比,激光切割落料生产线设备质量小,能 耗低,且无需复杂的设备基础,大大降低了前期投资和后期维护使用

Compared with the existing large-scale blanking production equipment, the laser-cutting blanking line has small weight, low energy consumption, and no complex equipment foundation, which greatly reduces the pre-investment and post-maintenance cost.



#### 灵活性高

High flexibility

无需制造模具,采用先进的排样软件及控制系统,产品规格形状转换 迅速,适合各种批量产品生产。

No need to manufacture dies, advanced layout software and control system are adopted. The product specifications and shapes change quickly, which is suitable for various batch production



#### 产品品质高

High quality

采用高精度的校平机、高精度的送料及切割系统、先进的自动码垛系 统等,可适应各种金属材料的零件胚料生产。

Advanced high-precision leveling machine, high-precision feeding, cutting system, and automatic stacker system, etc., can be adapted to the production of various metal parts embryo.



#### 材料利用率高

High material utilization

因为使用卷料进行连续生产,不会产生单片时料头料尾的损耗;同时 设备采用优化排样,将各种形状的零件组合进行无搭边切割,减少了 材料损耗,提高了材料利用率。

Because continuous production with coil material will not produce the loss of material head and tail when single piece is produced; at the same time, the equipment adopts optimized layout to cut various shapes of parts without lapping edge, which reduces material loss and improves material utilization rate.



#### 产出效率高

High output efficiency

与现有激光切割设备相比,激光切割落料生产线使用卷料进行坯料生 产,代替了卷材先切片再在设备上切割的生产工艺,提高了生产效率。

Compared with the existing laser cutting equipment, the laser-cutting blanking production line uses the coil for blank production, instead of the coil slicing first and then cutting on the equipment, which improves the production efficiency.



#### 维护成本低

Low maintenance cost

采用 10 万小时免维护的光纤激光发生器,性能可靠;同时激光切割速 度快,不锈钢的切割速度可达到每分钟50米/分钟(厚度1mm时), 可快速完成切割下料。

Use the 100,000-hour maintenance-free laser generater, reliable performance; the laser cutting speed is fast, the cutting speed of stainless steel can reach 50 meters per minute (when the thickness is 1 mm), and the blanking can be completed quickly.



# Low using cost

由于不需要模具进行冲压,降低了模具制造和维护费用;同时设备没 有使用大型压力机,生产能耗大大降低,也降低了环境噪音。

It reduces the mould manufacturing and maintenance costs. Meanwhile, without using large press, production energy consumption is greatly reduced, also reduces the ambient noise.

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## **现场照片** / Scene pictures



○设备全景



○ 上料系统



○ 活套及送料装置



○ 校平机快换辊组



○三头激光切割系统



O 六重式校平机



〇 码垛系统

## **应用前**景 / Application Prospect

- 符合社会节能减排的发展规划
- 提高毛坯质量,同时方便企业物料管理,减少物料损耗
- 不需要模具投入,设备柔性好,可最大化的满足用户的 产品需求
- 该项目可提高材料利用率达5%-10%,能够带来巨大的经济效益
- 采用自动化生产,可以大量降低人力,降低生产成本, 并保证了劳动者的安全
- 该项目既可替代开卷落料线,也是现有激光切割设备 的升级产品,设备性价比高,可很快产生投资效益

- It conforms to the development plan of social energy saving and emission reduction
- Improve the quality of the embryo material, at the same time convenient enterprise material management, reduce material loss
- It does not need die input and the equipment has good flexibility, which can maximize the satisfaction of user's product needs
- This project can increase the utilization rate of materials by 5%-10%, which can bring huge economic benefits
- The use of automated production can greatly reduce manpower, reduce production costs, and ensure the safety of workers
- This project can replace the uncoiling blanking line and is also an upgraded product of the existing laser cutting equipment. The equipment has a high cost performance ratio and can quickly produce investment benefits

# 经济型激光落料线

Economical laser blanking line

## 产品概述 / Product Overview

我公司于 2011 年开始研发了新型的激光切割 落料设备,并于 2013 年获得了国家发明专利。

整套采用激光切割技术的开卷落料生产设备,由上料台车、开卷机、校平机、缓冲活套、伺服送料机(如采用伺服校平送料一体机,则可以取代前面的校平机和缓冲活套,减少占地面积)、激光切割装置、切割平台、码垛装置、废料处理系统、液压气动系统及电气控制系统组成,通过系统控制的激光切割头在激光切割平台上进行的三维运动切割,代替压力机及模具,实现对金属带料的自动落料。

Our company began to develop a new type of laser cutting blanking equipment in 2011, and won the national invention patent in 2013.

A complete set of production equipment for uncoiling and blanking with laser cutting technology, consists of coil car, uncoiler, Leveller, looper, servo feeder, (If servo leveling and feeding machine is used, it can replace the previous leveling machine and looper to reduce the area occupied) laser cutting device, cutting platform, stacking device, waste disposal system, hydraulic pneumatic system and electrical control system. The laser cutting head controlled by the system is used for three-dimensional motion cutting on the laser cutting platform to replace the press and die to realize automatic blanking of metal strip.

