激光落料生产线

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。

Laser blanking production line

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

Using laser cutting technology of open-book blanking of a complete set of production equipment, by feeding trolley, uncoiled, leveling machine, buffer loop, servo feeder (such as servo leveling and feeding machine can replace the previous leveler and buffer loop, reducing area), laser cutting device, cutting platform, pallet device, waste treatment system, hydraulic pneumatic system and electric control system, through the system control of laser cutting head in laser cutting platform of 3 d motion cutting, instead of press and die, the realization of automatic blanking of the metal belt.

**产品特点 Product features**

**设备投资低Low investment in equipment**

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成本

Compared with the existing large-scale blanking production equipment, the laser cutting blanking production line equipment has low quality, low energy consumption, and does not need the complex equipment foundation, which greatly reduces the upfront investment and the later maintenance cost

**产出效率高 High 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 existing laser cutting equipment, laser cutting blanking production line USES roll material to produce billet, which replaces the production process of rolling material slicing and cutting on the equipment, and improves the production efficiency

**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 mould, adopt advanced layout software and control system, the product specification and shape change quickly, suitable for all kinds of batch production

**维护成本低Low maintenance cost**

采用性能可靠的光纤激光器,维护成本低；同时激光切割速度快，切割速度可达到每分钟50-60米/分钟(厚度1mm时)，可快速完成切割下料

Using reliable performance fiber laser, low maintenance cost; At the same time, the laser cutting speed is fast, cutting speed can reach 50-60 meters per minute (thickness of 1mm), can quickly complete the cutting blanking

**产品品质高High quality products**

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

Adopting high precision leveling machine, high precision feeding and cutting system, advanced automatic stacking system, etc., it can adapt to the production of various metal materials

**使用成本低 Low cost of use**

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

Because die stamping is not needed, the cost of die manufacturing and maintenance is reduced. At the same time, the equipment does not use large press, the production energy consumption is greatly reduced, also reduced the environmental noise

**材料利用率高High material utilization rate**

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 the use of coil for continuous production, there will be no loss of the head and tail of the single chip; At the same time, the equipment adopts optimized layout to cut the parts of various shapes without edges, which reduces the material loss and improves the material utilization.

**技术参数Technical parameters**

|  |  |  |
| --- | --- | --- |
| 1 | 型号model | CPL-3\*2150 |
| 2 | 激光功率 Laser Power | 3\*4kw或3\*6kw 3\*4kw or 3\*6kw |
| 3 | 焦长focal length | 125自动对焦125 Auto focus |
| 4 | 操作系统 Operation System | Windows7 |
| 5 | 操作软件Operating software | Siemens 840D sl |
| 6 | 矫平送料速度Leveling feeding rate | 0-50m/min |
| 7 | 激光切割速度 Cutting Speed | 50m/min（1mmm,单头）Single Cutting Head |

**原料参数Raw material parameters**

|  |  |  |
| --- | --- | --- |
| 1 | 材质Material | 普通冷轧钢板、镀锌板、酸洗板、5系、6系铝合金板 Common cold rolled steel plate, galvanized plate, pickling plate, 5 series, 6 series aluminum alloy plate |
| 2 | 抗拉强度Tensile strength | 抗拉强度220-980MPa  Tensile strength: 220-980mpa |
| 3 | 板料厚度sheet metal thickness | 钢板steel plate： Min0.5 – Max3.5 （mm）  铝板Aluminum plate： Min0.6 – Max3.0 （mm） |
| 4 | 卷料宽度coil Width | 500-2150 mm |
| 5 | 卷料重量 coil weight | 20-30t |
| 6 | 卷料内径Coil inner diameter | Φ508 mm /Φ610 mm |
| 7 | 卷料外径Coil outer diameter | Φ800-Φ2000 mm |

**成品参数finished product parameters**

|  |  |  |
| --- | --- | --- |
| 1 | 料片长度Material piece length | 150-4000mm |
| 2 | 板料形状Blank shape | 矩形料、异形料、梯形件Rectangle material, abnormity material, trapezoid piece |
| 3 | 轮廓精度contour precision | ±0.5mm /m |
| 4 | 校平精度Leveling precision | 1mm /m2 |

**工厂环境及能源条件Plant environmental and energy conditions**

|  |  |  |
| --- | --- | --- |
| 1 | 环境温度environment temperature | -5℃～45℃ |
| 环境相对湿度Ambient relative humidity | 80% |
| 2 | 电源 Power Supply | AC3×380V±10%，50HZ±2HZ |
| 3 | 压缩空气 compressed air | 0.6MPa及1.4MPa  0.6MPa and 1.4MPa |
| 4 | 冷却水cooling water | 工业用水 、工业用纯净水Industrial water, industrial purified water |