



ZHONGHUI COLD FORMING



石家庄市中汇冷弯焊管设备有限公司
Shijiazhuang Zhonghui Cold-forming & Pipe-welding Equipment Co., Ltd.

地址: 石家庄市友谊南大街122号
Add: No.122, Youyi Street, Shijiazhuang City, China
电话 Tel: +86-311-83023765 83020142
传真 Fax: +86-311-83020142 83023765

售后服务部 After Sales: +86-311-83028590
网址 Web: www.zhlw.com.cn
邮箱 E-mail: zhlw@zhlw.com.cn



目录 CONTENTS

1 关于中汇 ABOUT US

01 企业简介
About Us

03 技术设计
Product Design

05 加工设备
Processing Equipment

07 企业业绩
Project Performance

产品中心 PRODUCT CENTER

ERW高频直缝焊管生产线
ERW Welded Pipe Production Line 10

石油天然气焊管生产线
Oil & Natural Gas Steel Pipe Production Line 15

直接成型焊管生产线
Direct Forming Welded Pipe Production Line 17

空冷器（岛）制管生产线
Air Condenser Pipe Production Line 19

高精度不锈钢管生产线
Precision Stainless Steel Tube Production Line 20

冷弯型钢生产线
Cold Roll Forming Sectional Steel Production Line 21

大厚径比异型管生产线
Special Welded Pipe Production Line 22

高频焊接H型钢生产线
HF Welded H Beam Steel Production Line 23

纵剪生产线
Coil Slitting Line 24

服务中心 SERVICE CENTER

安装调试、售后服务
Installation, Commissioning & After-sales service 25

辅助设备及备件
Auxiliary Equipments & Spares 26

设备选型参考
Product Selection Form 27

关于中汇 ABOUT US



ZHONGHUI
COLD
FORMING

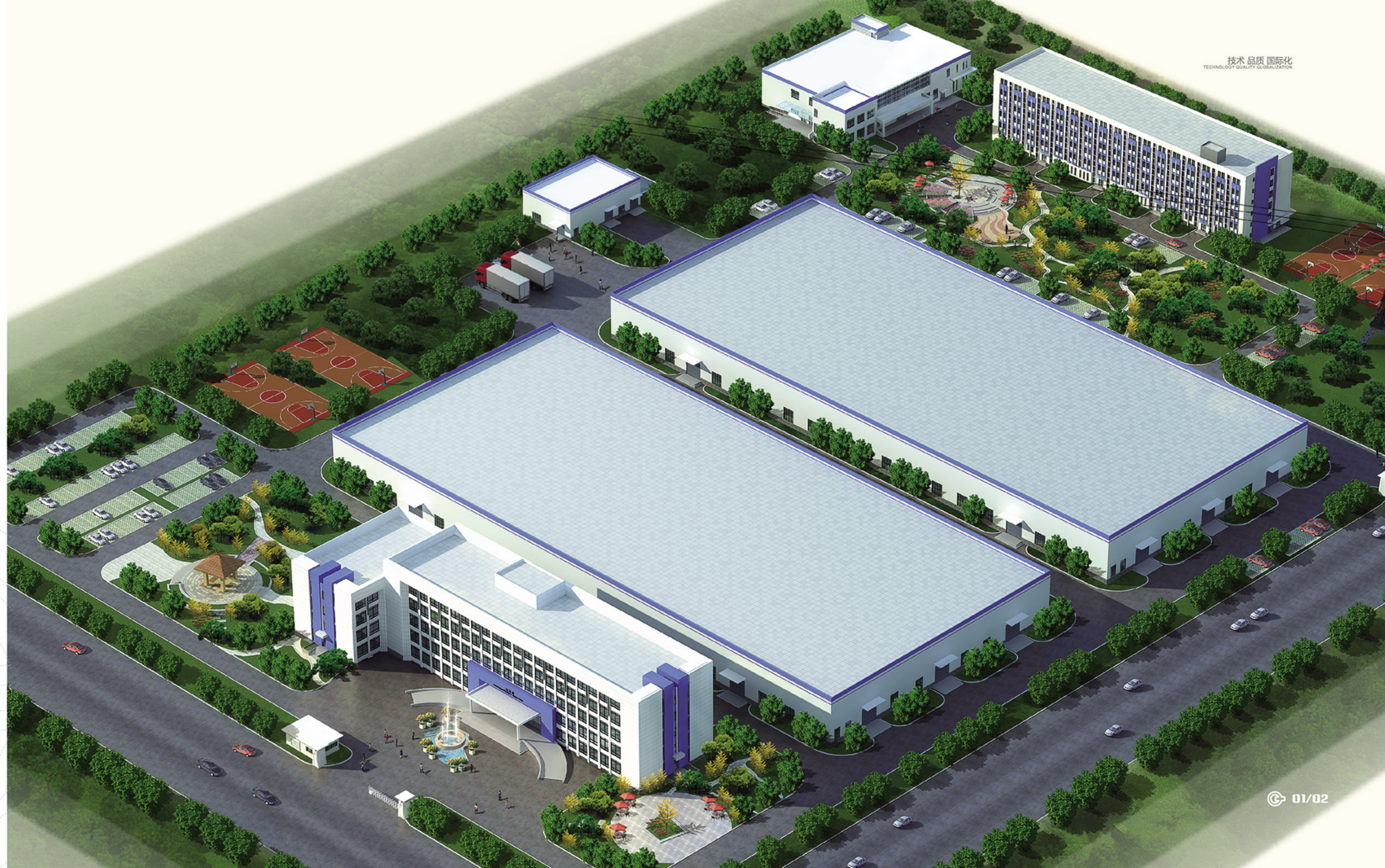
ABOUT
US

企业简介 COMPANY PROFILE



石家庄市 中汇冷弯焊管设备有限公司是一家专业从事焊管成型技术开发与焊管成套装备制造的高新技术企业。公司成立于1997年，产品涉及ERW高频直缝焊管生产线、石油天然气焊管生产线、精密焊管生产线、冷弯型钢生产线、纵剪生产线及其相关配套设备。历经二十余年的发展已经成为集研发，设计，制造于一体，具有机械加工、品质管制、设备装配、安装、调试、培训的能力及快速的售后服务保证体系和零配件供应体系的企业。2006年我们以高质量的产品和优质完善的售后服务获得“守合同重信用单位”的荣誉，并在行业内首家获得“ISO9001：2000国际质量管理体系认证”和“奥地利TUV-CE认证”。

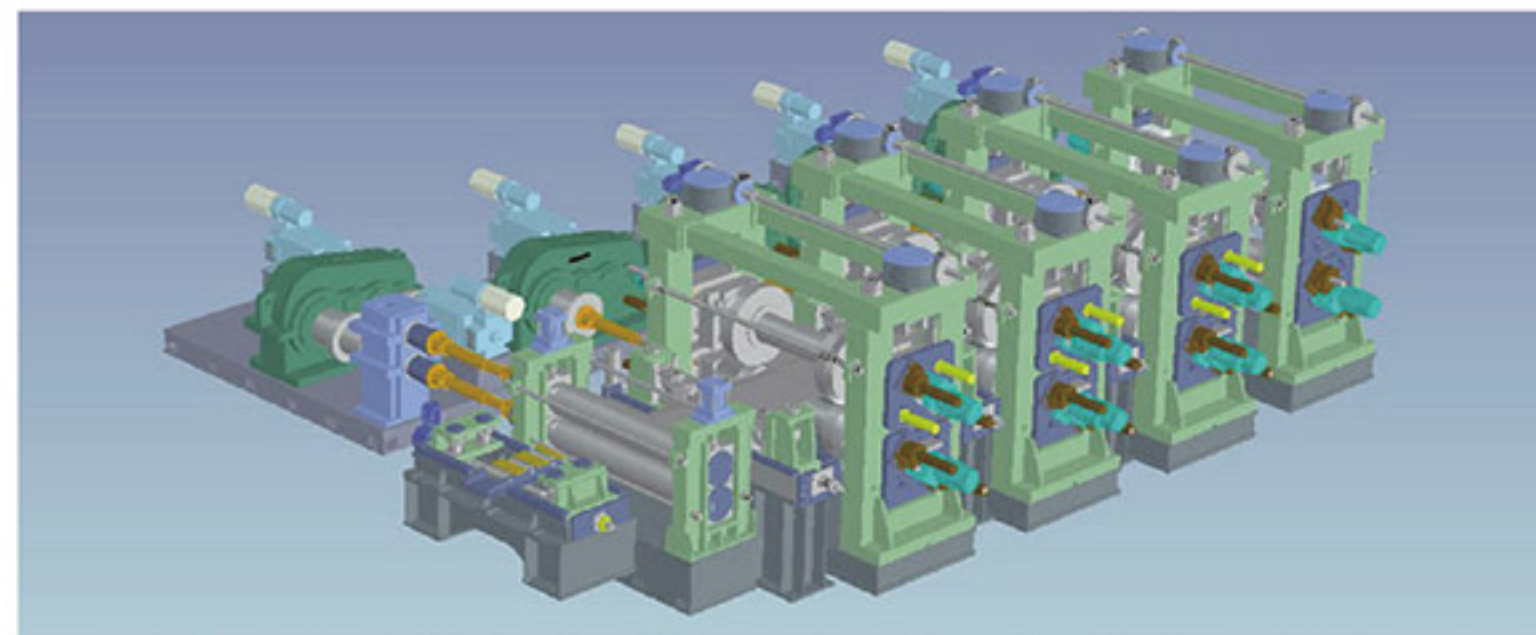
SHIJIAZHUANG ZHONGHUI COLD-FORMING & PIPE-WELDING EQUIPMENT CO., LTD. established in 1997, is a high-tech enterprise specialized in ERW welded pipe forming technology development and complete line manufacturing. Our products involve in ERW welded pipe production line, Oil & Gas pipe production line, precise steel pipe production line, cold roll forming section steel production line, coil slitting line and corresponding auxiliary equipments. Based on more-than-twenty-year experience, we have been capable of carrying out R&D, designing and manufacturing independently, and set up a comprehensive supply system featuring machining, quality controlling, equipment assembling, installing, commissioning, training and professional after-sales service. In 2006, our high-quality products and sound after-sales service system won us the honor of "Enterprise of abiding by contract and being trustworthy". Meanwhile, we are also the first company in our field to gain the certification of "ISO9001:2000 international quality management system" and TUV-CE Certification in European market.



技术 品质 国际化
TECHNOLOGY QUALITY GLOBALIZATION

技术设计 PRODUCT DESIGN

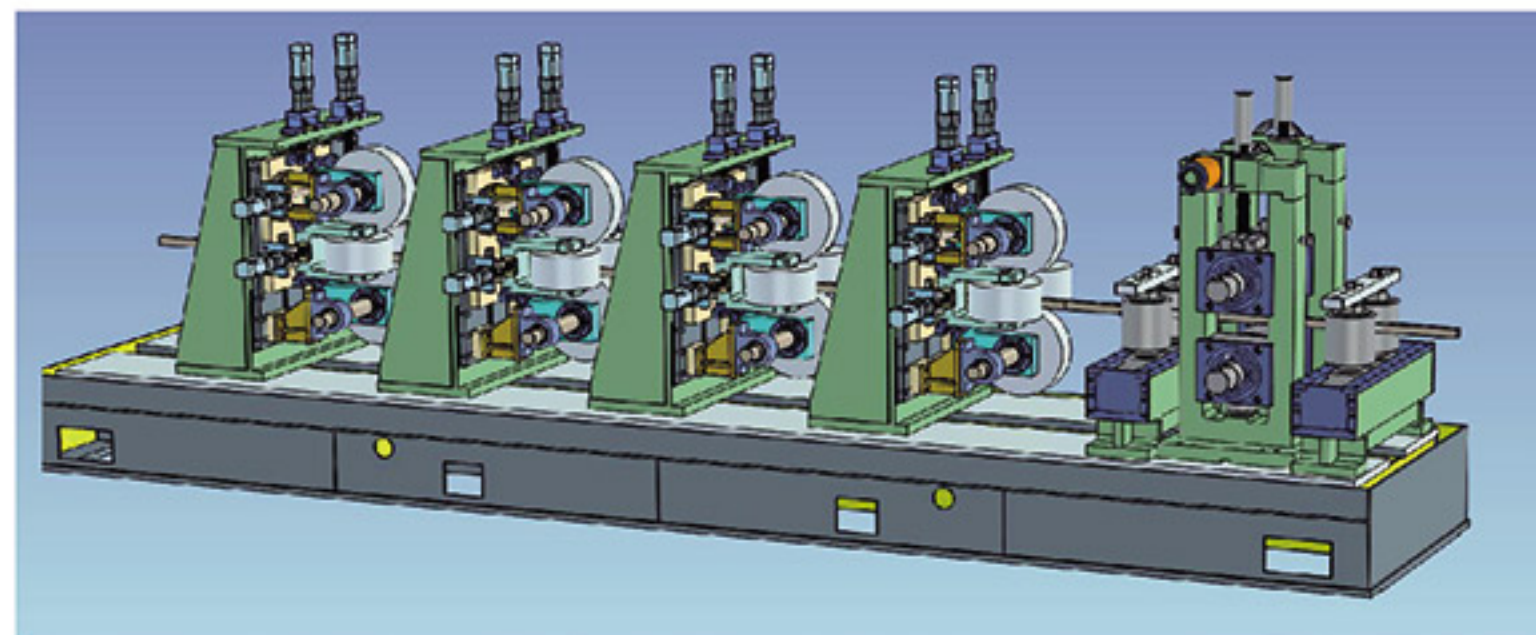
ZHONGHUI
COLD
FORMING
ABOUT
US



500 方设计技术:

模具共用率高, 达到 90%; 少量需换辊部分备有液压快速换辊机构; 更换产品规格, 轧辊位置电动调整; 轧辊位置调整装置本身具有自锁功能, 定位准确可靠, 换辊时间和劳动量减少三分之二, 操作安全方便。

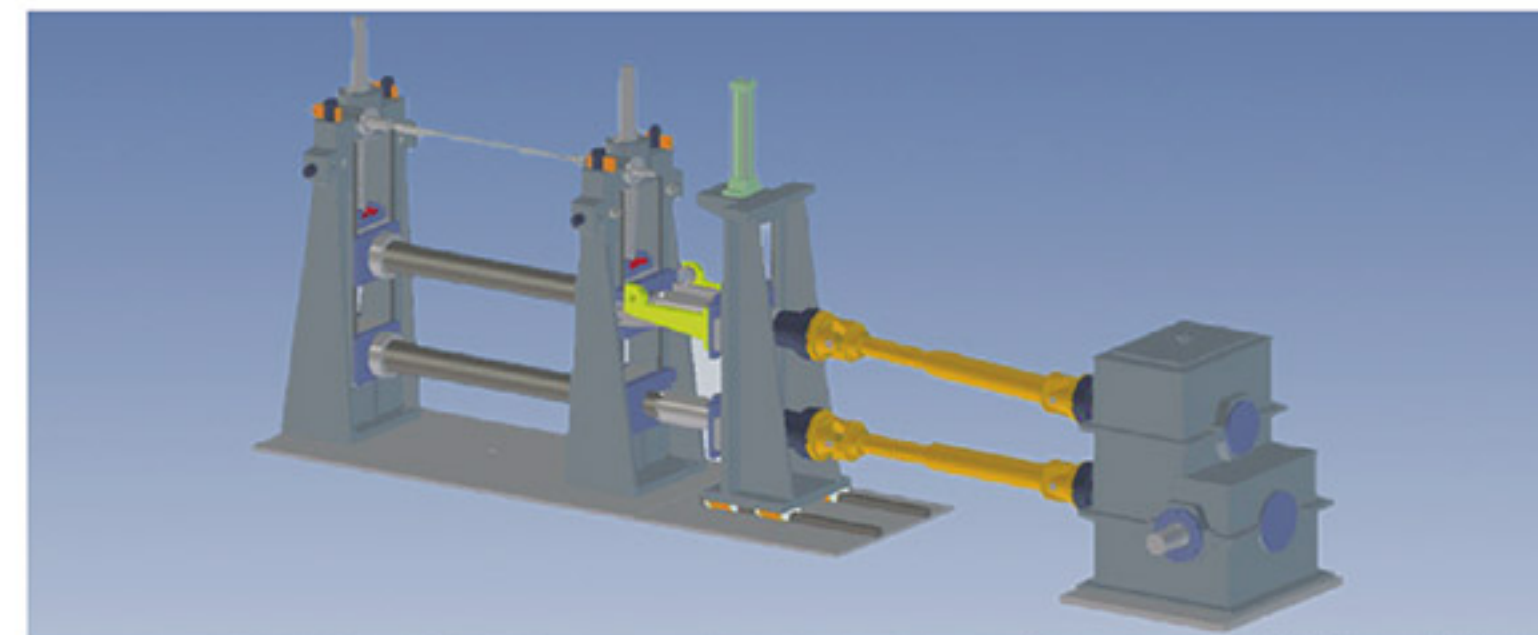
Different pipe size roll sharing rate with 90%; the few rolls to be changed with hydraulic fast change structure; Roll motor adjustment to fit different pipe size; the adjustment device is with self-locking function, which is accurate in positioning; Reducing two third of the time and manpower, convenient and safe operation.



80 方设计技术:

机组生产范围内不同规格, 模具只需调整无需更换; 不同带钢厚度模具可微调; 机架调整采用伺服调整装置, 准确快捷; 模具投入少, 换辊时间短, 生产效率高。

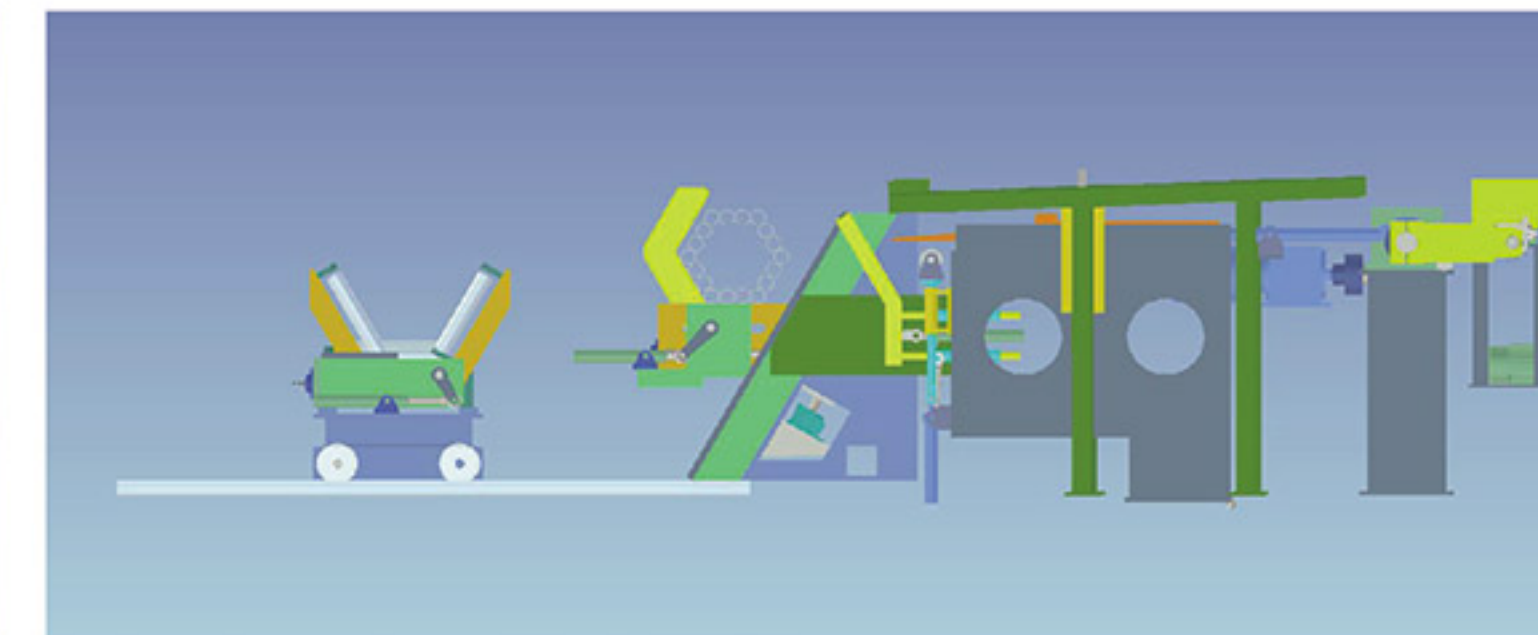
Zero rolls changing in mill size range; rolls adjusting instead of changing for different size; Different thickness can be micro set up; Roll stands automatic servo adjustment system, which is accurate and fast; Roll cost reducing, roll changing time saving, production efficiency increasing.



快速换辊系统 Quick change system:

219MM 以下设备采用整体快换, 管径超过 219MM 以上设备采用轴系快换系统; 本机组可在线下进行轧辊调整和更换, 可大大节省换辊时间, 提高生产效率。

The pipe mill of which pipe diameter below 219mm will adopt whole working table quick change system, other wise adopting shaft assembly quick change system; The rollers can be installed and adjusted or changed off line, which can greatly save the time for roll changing and improve the production efficiency.



全自动打包机 Automatic Packing Machine

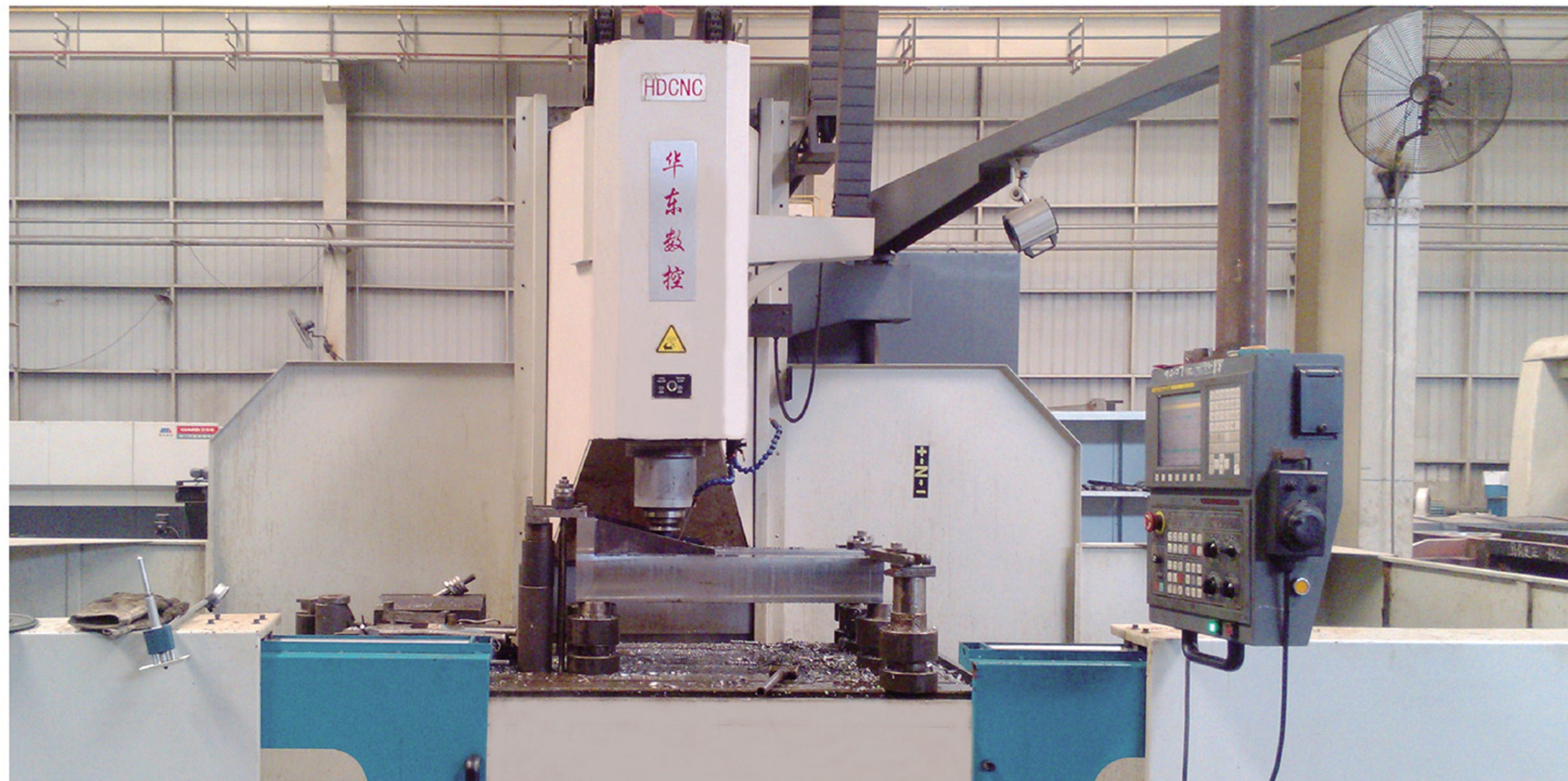
该设备可对圆管, 方矩形管经过计数收集, 在收集装置处码垛, 然后输送到打包位置, 最后由人工或自动打捆系统进行捆扎。

The equipment can be used to packing round, square, oval and rectangular pipes; the pipes will first be collected by computer counting system, stacked at the packing device, and then bundled up manually or by automatic banding system.

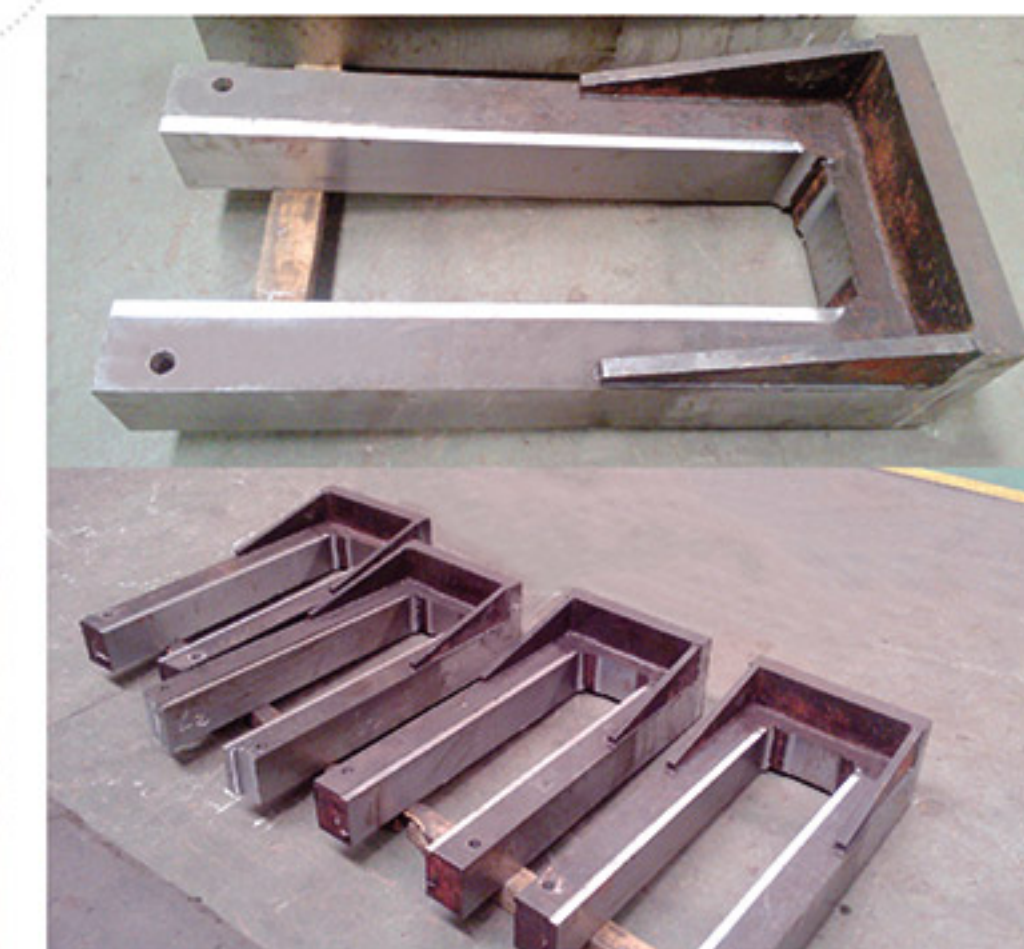
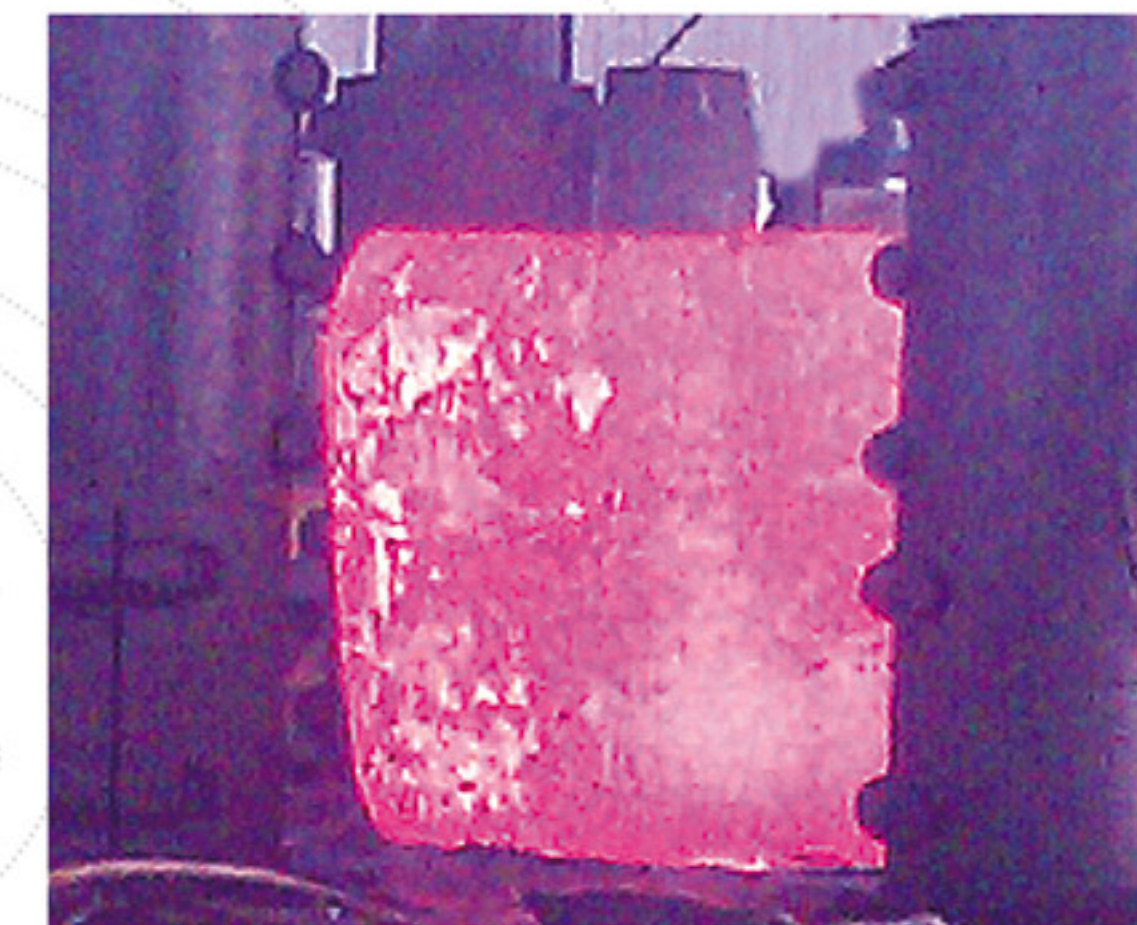
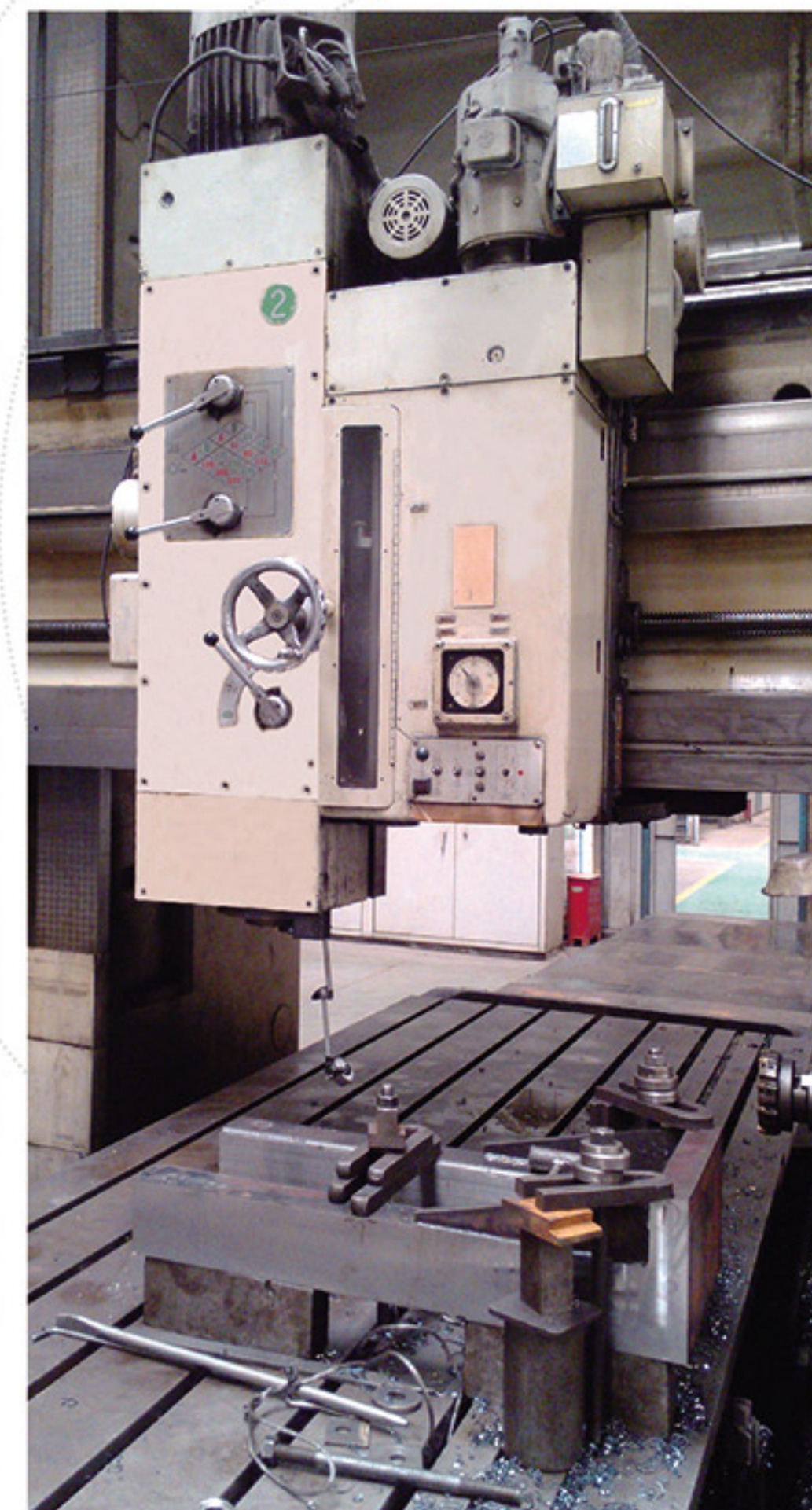
CNC 加工中心 PRECISION MACHINING EQUIPMENT

ZHONGHUI
COLD
FORMING
ABOUT
US

优秀的设备应该从精良的加工设备做起。 The excellent machine should begin from precise machining.



良好的品质源于成熟完整的工艺。 The good quality comes from mature and complete machining technique.



工程业绩
PROJECT
PERFORMANCE

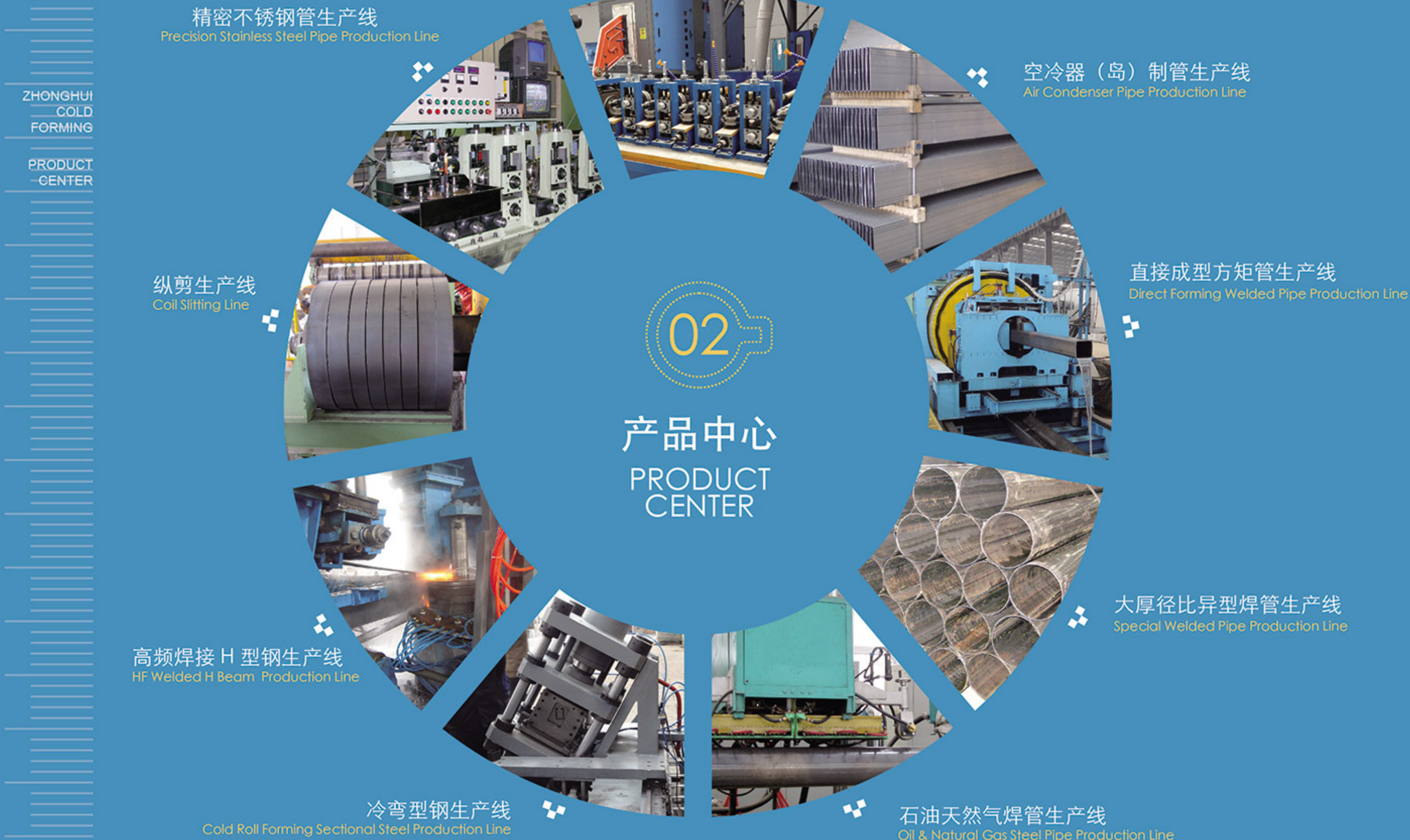
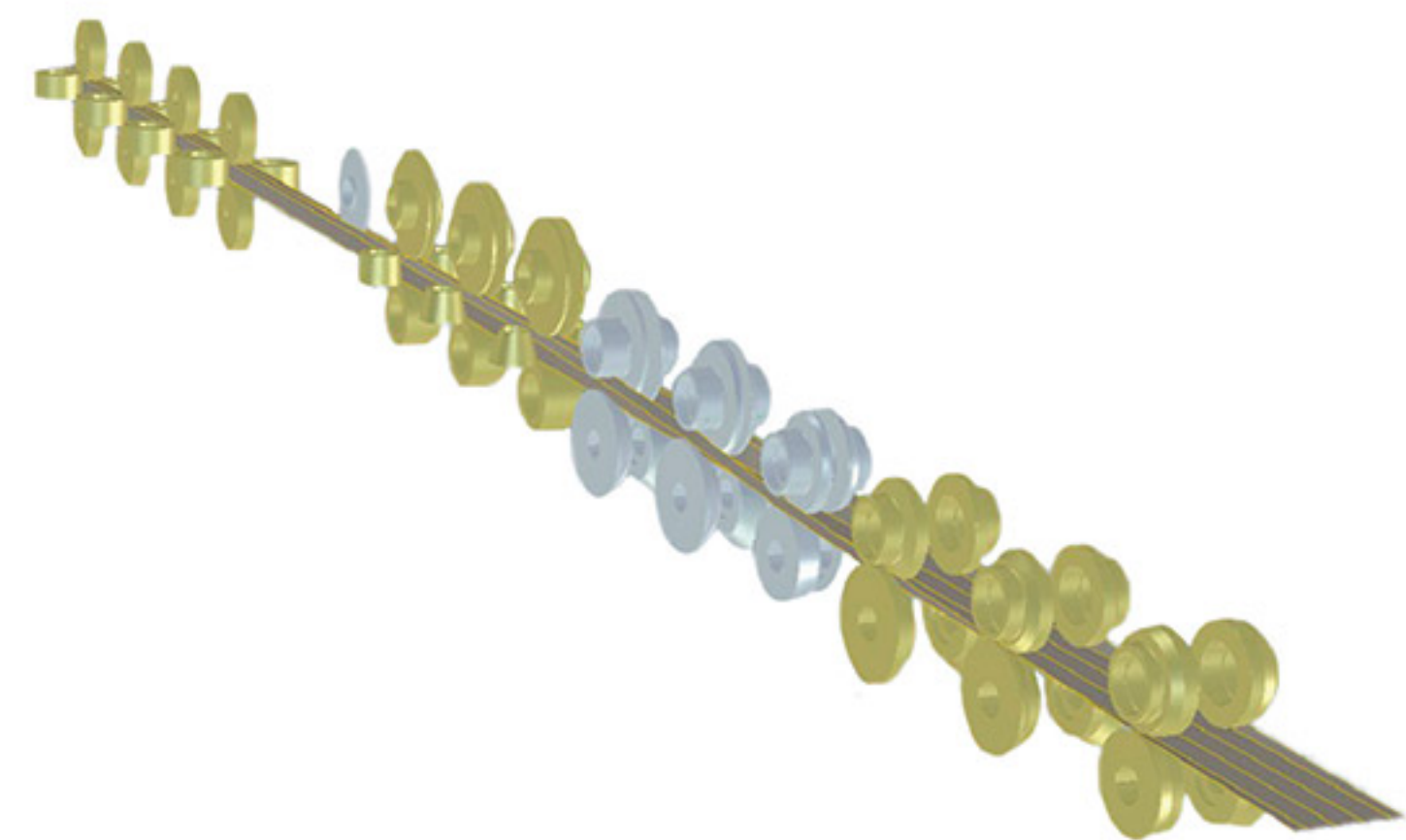
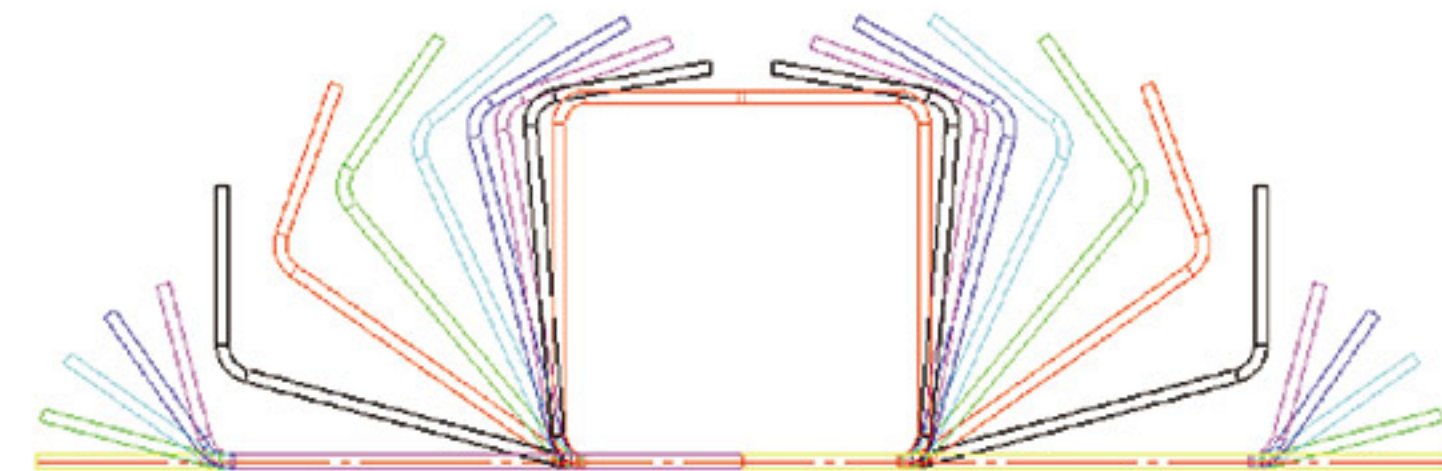
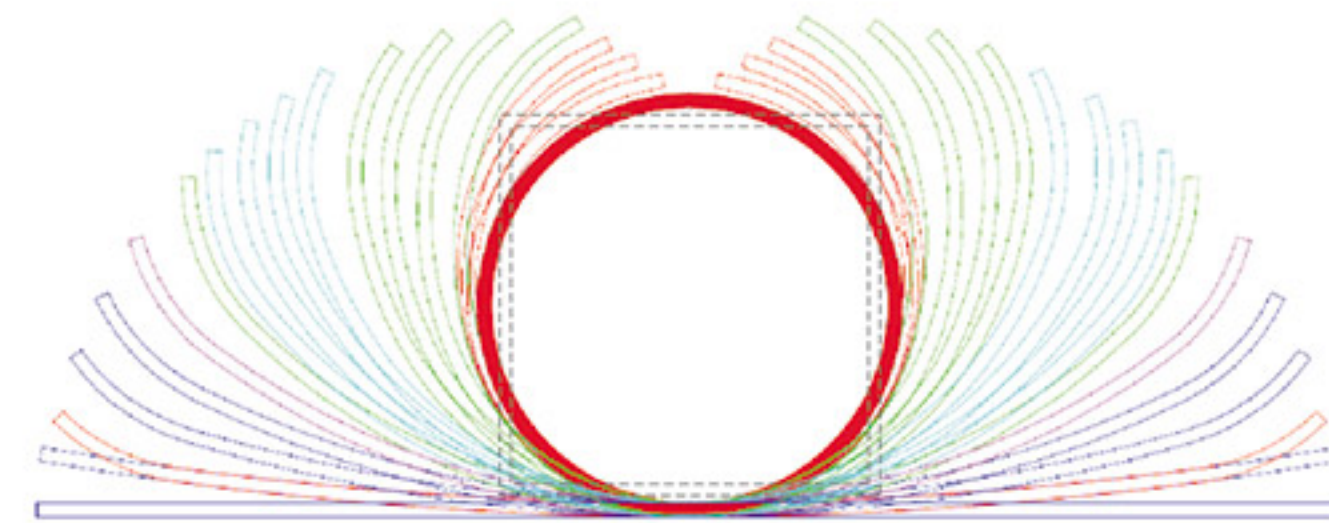
Φ50、Φ76	大连新前景钢管有限公司 DALIAN XINQIANJING STEEL PIPE CO., LTD.
LW2000 (Φ630)	天津立业钢铁集团公司 TIANJIN LIYE STEEL GROUP
Φ50、Φ76、Φ114、Φ165、Φ76×5、Φ140×6 Φ219、Φ325、1600×6-8、1800×8-12	宝钢集团新疆八一钢铁有限公司 BAOSTEEL GROUP XINJIANG BAYI IRON & STEEL CO., LTD.
Φ76、Φ114、Φ165、Φ219 Φ273、100方、150方	广东佛山振鸿集团 GUANGDONG FOSHAN ZHENHONG GROUP
H BEAM PRODUCTION LINE	应达集团上海有限公司 INDUCTOTHERM GROUP (SHANGHAI)
Φ219、Φ76、Φ50	天津恒基钢铁 TIANJIN HENGJI STEEL GROUP
Φ165、150方	唐山市顺捷冷弯型钢有限公司 TANGSHAN SHUNJIE COLD-FORMING SECTIONAL-STEEL CO., LTD.
Φ219	济南玫德铸造有限公司 JINAN MEIDE ZHUZAO CO., LTD.
Φ89、Φ114	中国国际海运集装箱集团 CHINA INTERNATIONAL MARINE CONTAINERS GROUP CO., LTD.
Φ219、Φ76、Φ60、Φ32	新疆会兴钢管有限公司 XINJIANG HUIXING STEEL PIPE CO., LTD.
Φ165	山东鲁宝冶金股份有限公司 SHANDONG LUBAO METALLURGICAL GROUP CO., LTD.
Φ50、Φ165	山东枣庄联创实业有限公司 SHANDONG LIANCHUANG INDUSTRY CO., LTD.
LW1200	江苏顺力钢业集团 SHUNLI STEEL GROUP
LW500	德国基伊埃、贵州贵航集团、首航集团、张家港新凯GEA、GUIHANG GROUP、SHOUHANG GROUP、ZHANGJIAGANG XINKAI
Φ165	南京立志高速公路材料有限公司 NANJING LIZHI HIGHWAY MATERIAL CO., LTD.
300方	江苏苏锐制管有限公司 JIANGSU SURUI MANUFACTURING TUBE CO., LTD.

Φ76、Φ114	河北会兴冷轧制管有限公司 HEBEI HUIXING COLD-ROLLING PIPE-MAKING CO., LTD.
Φ32	美汇（天津）钢管有限公司 TIANJIN MEIHUI STEEL TUBE CO., LTD.
C COLD FORMING MILL LINE	杭州韩盛科技发展有限公司 HANGZHOU WEISHENG
Φ102、Φ76、Φ50、Φ32	新疆隆通钢管有限公司 XINJIANG LONGTONG STEEL PIPE CO., LTD.
Φ60*0.4-2.5	胜芳华贸钢管有限公司 HEBEI SHENGFANG HUAMAO STEEL PIPE CO., LTD.
120方×8	浙江西子重工机械有限公司 ZHEJIANG XIZI HEAVY INDUSTRY MACHINERY CO., LTD.
Φ325*14	宝钢集团新疆八一钢铁有限公司 BAOSTEEL GROUP XINJIANG BAYI IRON & STEEL CO., LTD.
Φ219*10	首钢伊犁钢铁有限公司 SHOUGANG YILI STEEL CO., LTD.
Φ32、Φ50、Φ76、Φ89、Φ114、Φ165	出口越南 EXPORT TO VIETNAMS
Φ76*3.5、Φ127*3.0	出口波兰 EXPORT TO POLAND
Φ60、1300×4.0、1600×6.0	出口埃及 EXPORT TO EGYPT
Φ60、Φ114、1600*8 LZ450、Φ219×10、1600×16	出口乌兹别克斯坦 EXPORT TO UZBEKISTAN
Φ50、Φ76、Φ114、LW500、LW700 Φ114、1250×3、1250×4 LZ400	出口哈萨克斯坦 EXPORT TO KAZAKSTAN
1600×4.5	出口泰国 EXPORT TO THAILAND
LW590*1.5	出口韩国 EXPORT TO SOUTH KOREA
Φ273*12.0	出口南非 EXPORT TO SOUTH AFRICA
Φ219*6.0	出口印度尼西亚 EXPORT TO INDONESIA
Φ32*2.0	出口沙特阿拉伯 EXPORT TO SAUDI ARABIA
Φ165*6.0	出口美国 EXPORT TO USA
Φ140、Φ76、Φ60	出口阿尔及利亚 EXPORT TO ALGERIA

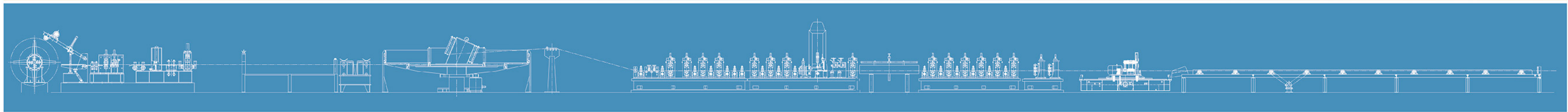
ERW高频直缝焊管生产线 ERW WELDED PIPE PRODUCTION LINE

ERW 高频直缝焊管生产线是用于将带钢连续生产成直缝焊管的设备，可用于生产穿线管、脚手架管、自行车管、健身器材管、高速公路桩管等圆形、方形结构用管，自来水管、暖气管等低中压流体管，以及汽车用管、锅炉用管、托辊管等高精密焊管。

Is designed to roll steel strips continuously to produce straight seam welded tubes or pipes which is used to produce structure pipes of circular ,square and rectangular tube such as threading pipe ,scaffold pipe,bicycle tube, fitness equipment pipe, pile pipe in highway, low and medium pressure fluid pipe such as water pipe ,heating pipe etc, as well as automobile tube ,boiling pipe, roller carrier pipe etc high precision welded pipe .



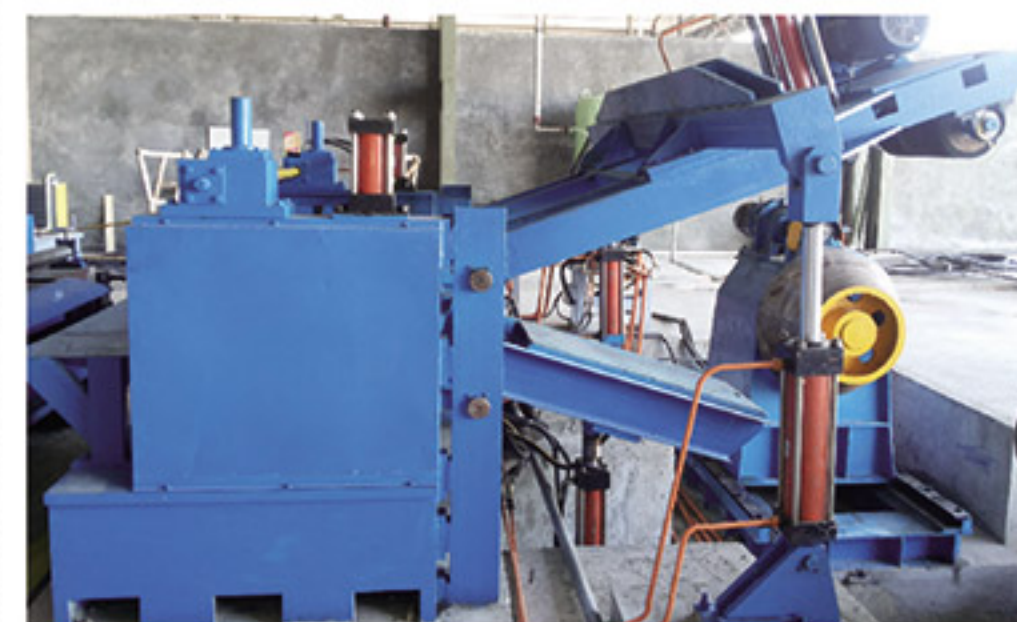
ERW高频焊管生产线工艺流程图 Technical process flows



开卷机 UNCOILER



直头夹送矫平机 PINCHING & LEVELING



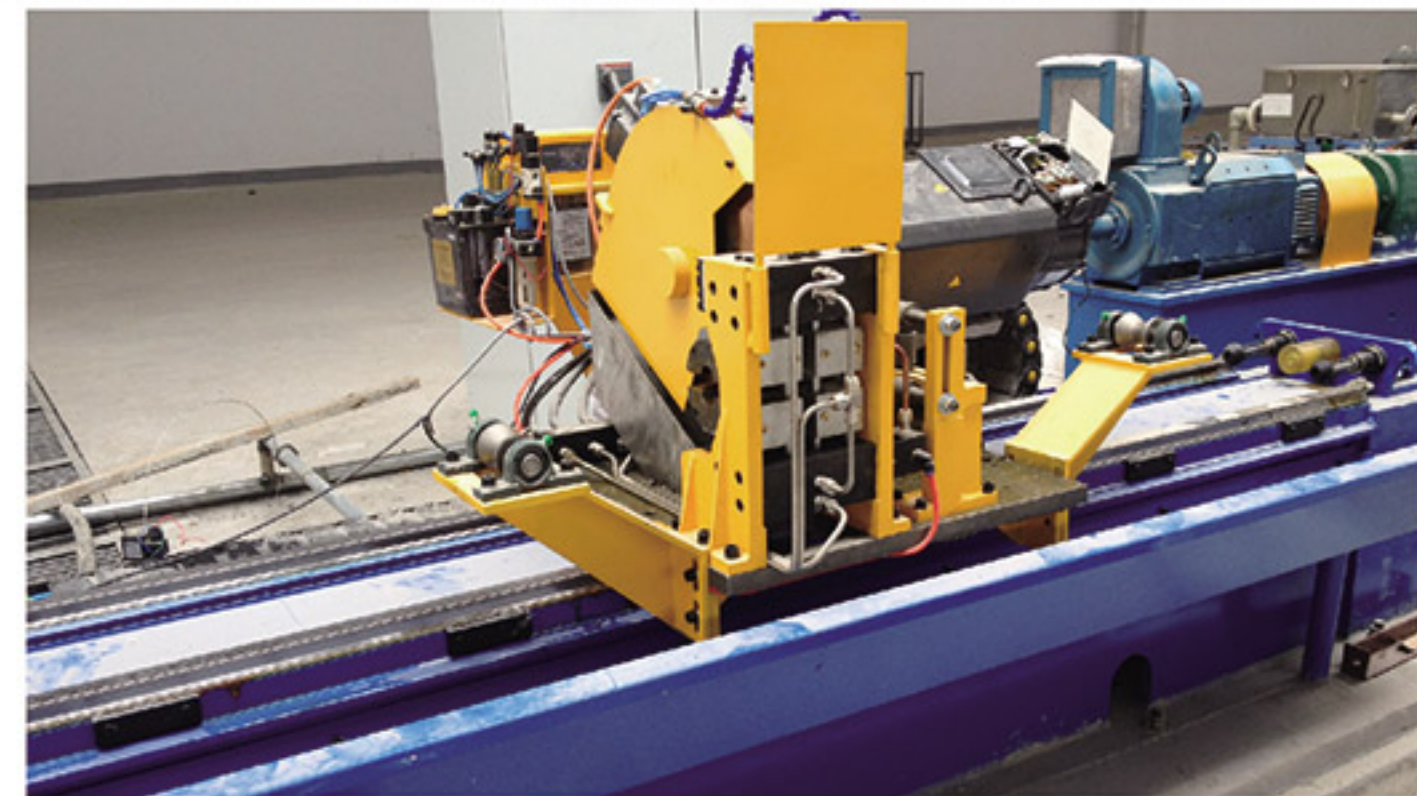
剪切对焊机 SHEAR & WELDER



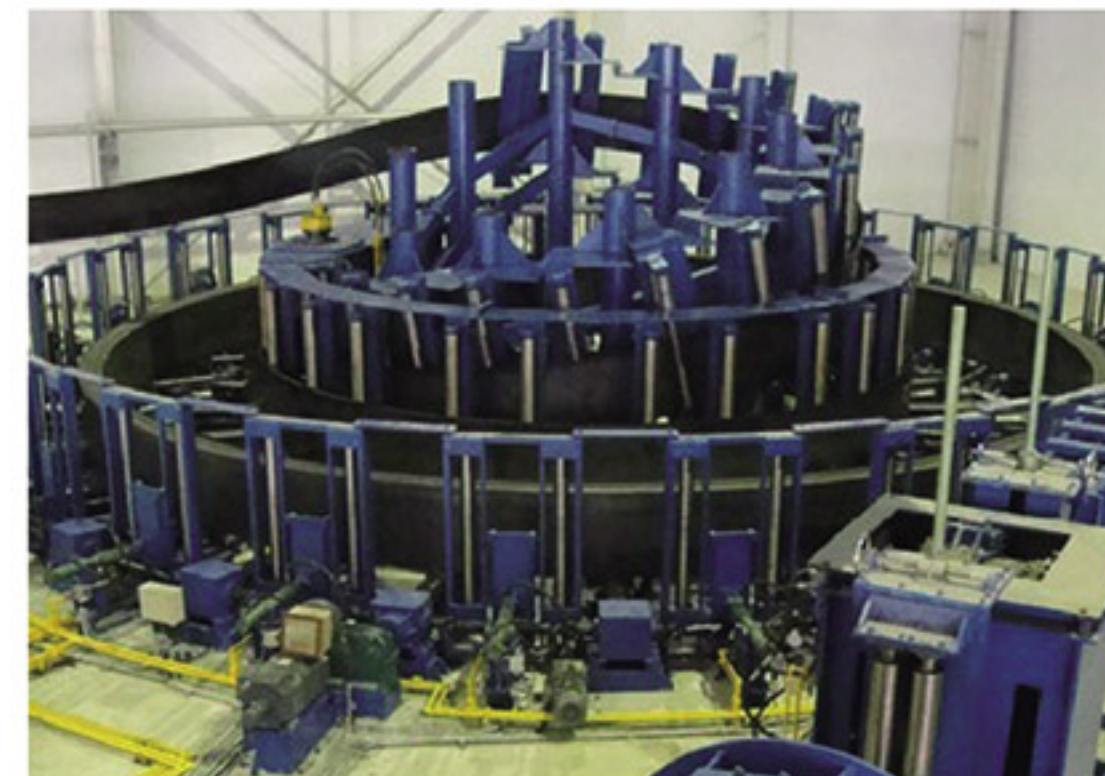
成型定径机 FORMING & SIZING MILL



锯切设备
CUTTING SAW



储料活套 STORING ACCUMULATOR



矫直机 STRAIGHTENING MACHINE



平头倒棱机 END-FACING MACHINE



水压试验机 HYDRO TESTING MACHINE



石油、天然气钢管生产线 OIL&NATURAL GAS STEEL PIPE PRODUCTION LINE

石油、天然气钢管生产线用于生产符合 API-5L、API-5CT、ASTM A53 GRADE A&B 标准的石油天然气输送管、石油套管等，也可用于锅炉、传热等高压输送管线。

This line is designed to produce the oil and gas transmission pipe, petroleum drive pipe etc., conforming to standard of API-5L, API-5CT, ASTM A53 Grade A&B, also the boiler and heat transfer pipes, high-pressure pipes etc.

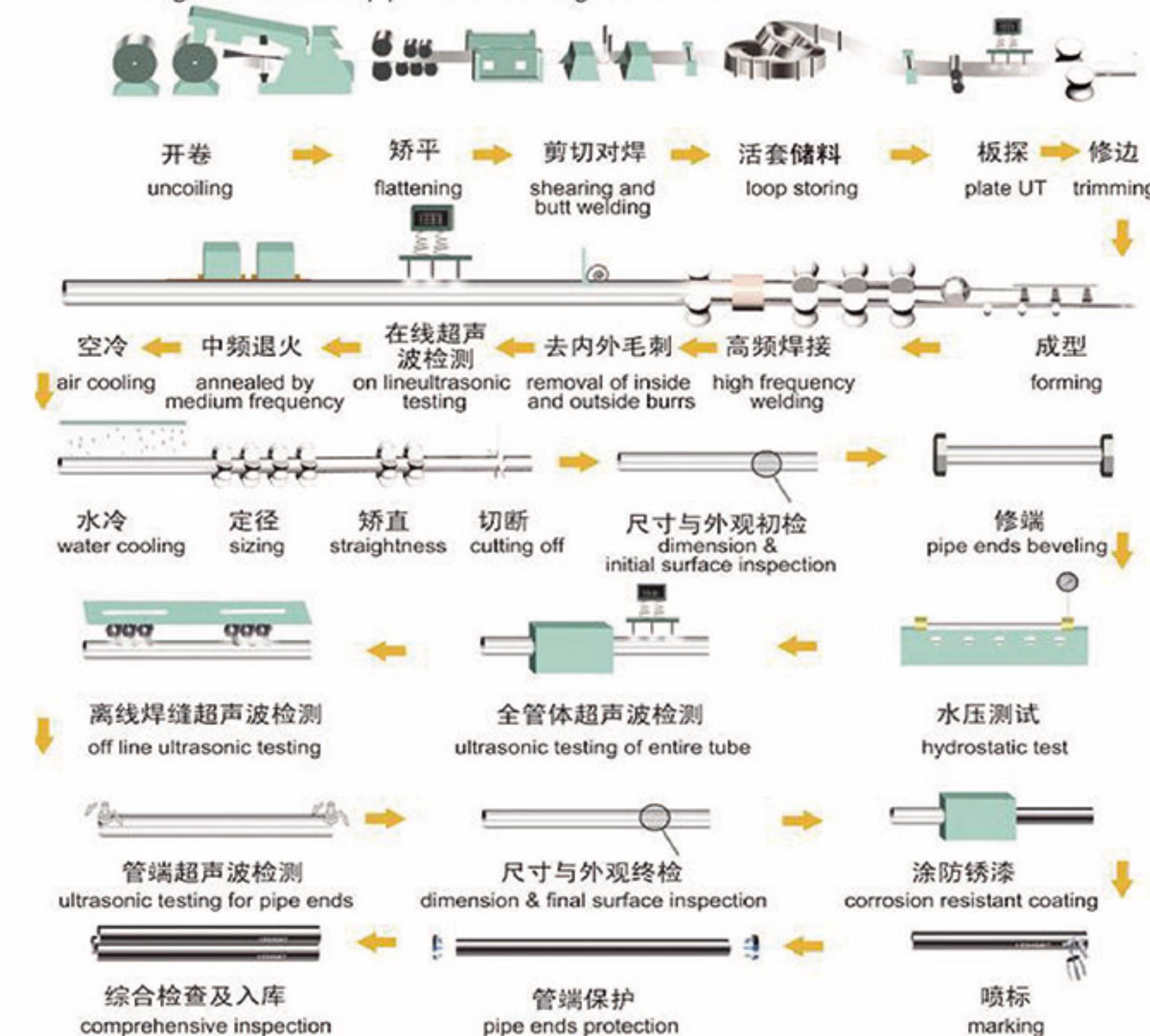


我公司吸收国际一流的制管技术，采用 FFX、排辊成型等柔性成型技术，将计算机 CAD 系统应用于焊管变形过程，分析研究了高钢级钢管的变形控制工艺，并与高性能焊机配合，更好的解决了成型及焊接缺陷，为用户提供高钢级、高附加值的焊管产品。

We absorb the international advanced technology of tube making, like FFX and cage forming flexible formation technology etc, which apply CAD system to deformation process of welded pipe, which analysis and research the distortion control craft of high grade steel pipe, also coordinated with high-performance welding machine to solve better the forming and welding defects that provide the high grade & high value-added welded pipe products for users.

直缝高频电阻焊钢管生产工艺流程图

longitudinal welded pipe manufacturing flow chart



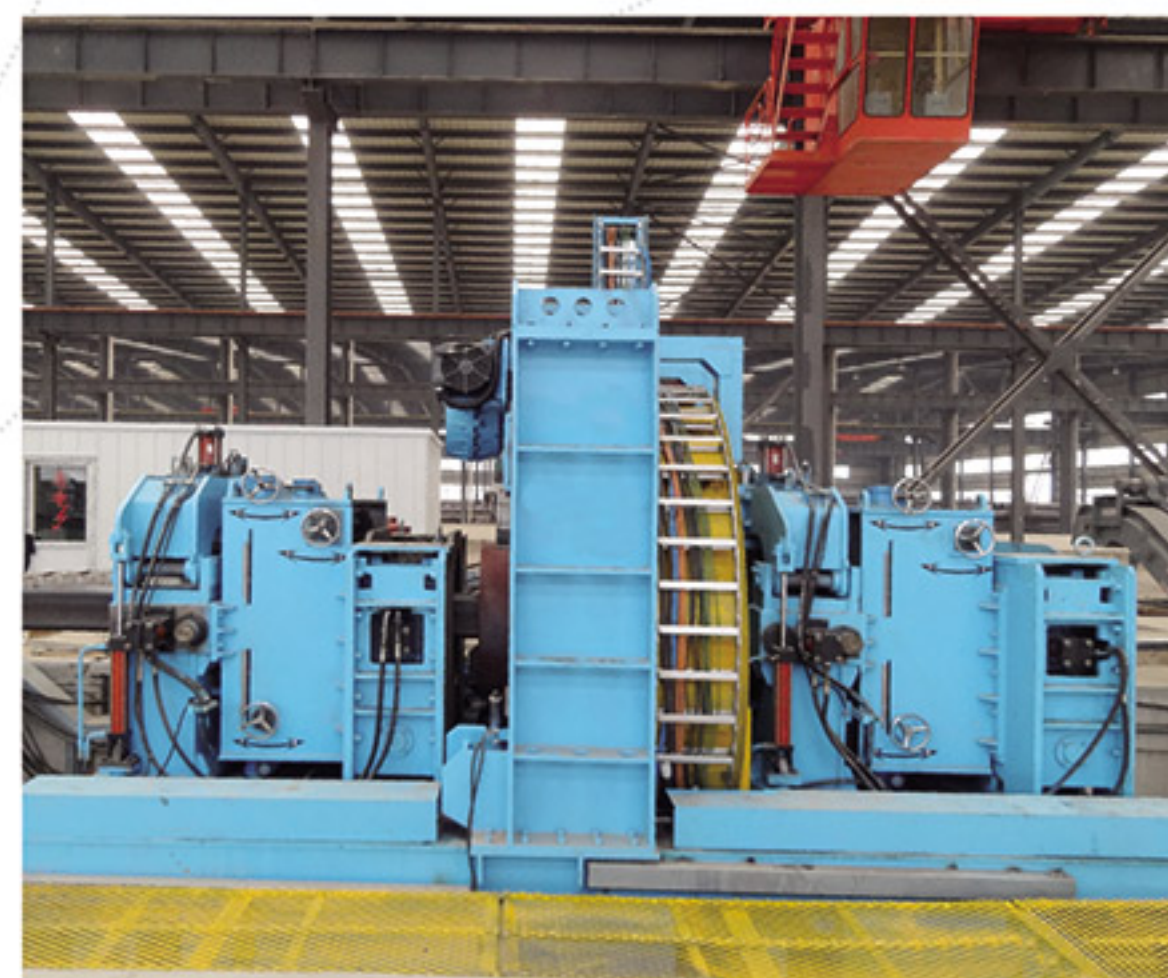
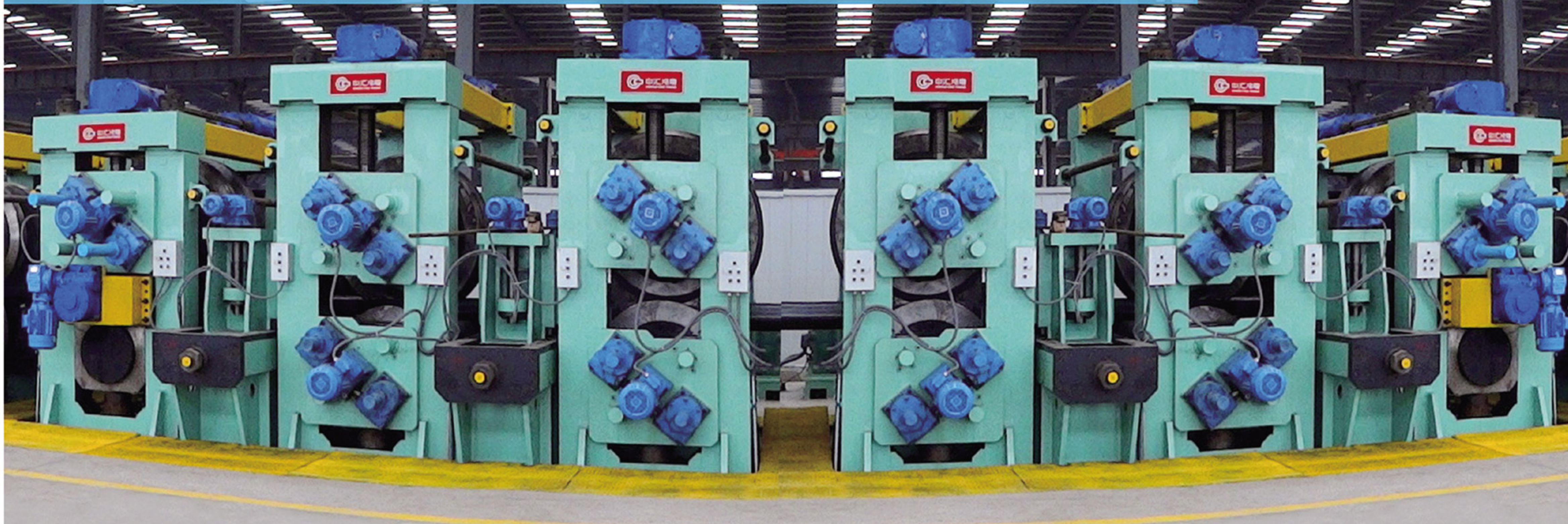
直接成型方矩管生产线 DIRECT FORMING WELDED PIPE PRODUCTION LINE

ZHONGHUI
COLD
FORMING

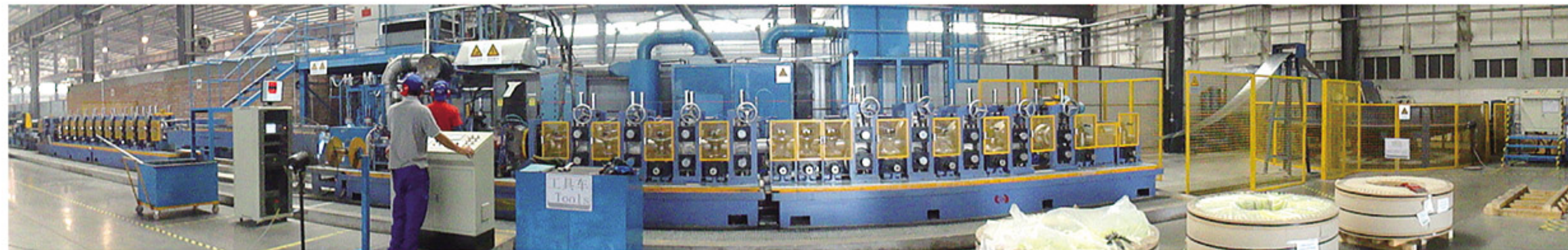
PRODUCT
CENTER

直接成型方矩管工艺生产方管、矩形管成型过程中轧辊采用组合式轧辊，分片结构，一套轧辊可覆盖大部分产品规格，共用率达到90%，在变形区域轧辊与带钢局部接触，相应减少了带钢和轧辊的摩擦，轧辊损耗少，机组成型能耗也相应减少了许多，同时该种工艺能节省带钢约4%。

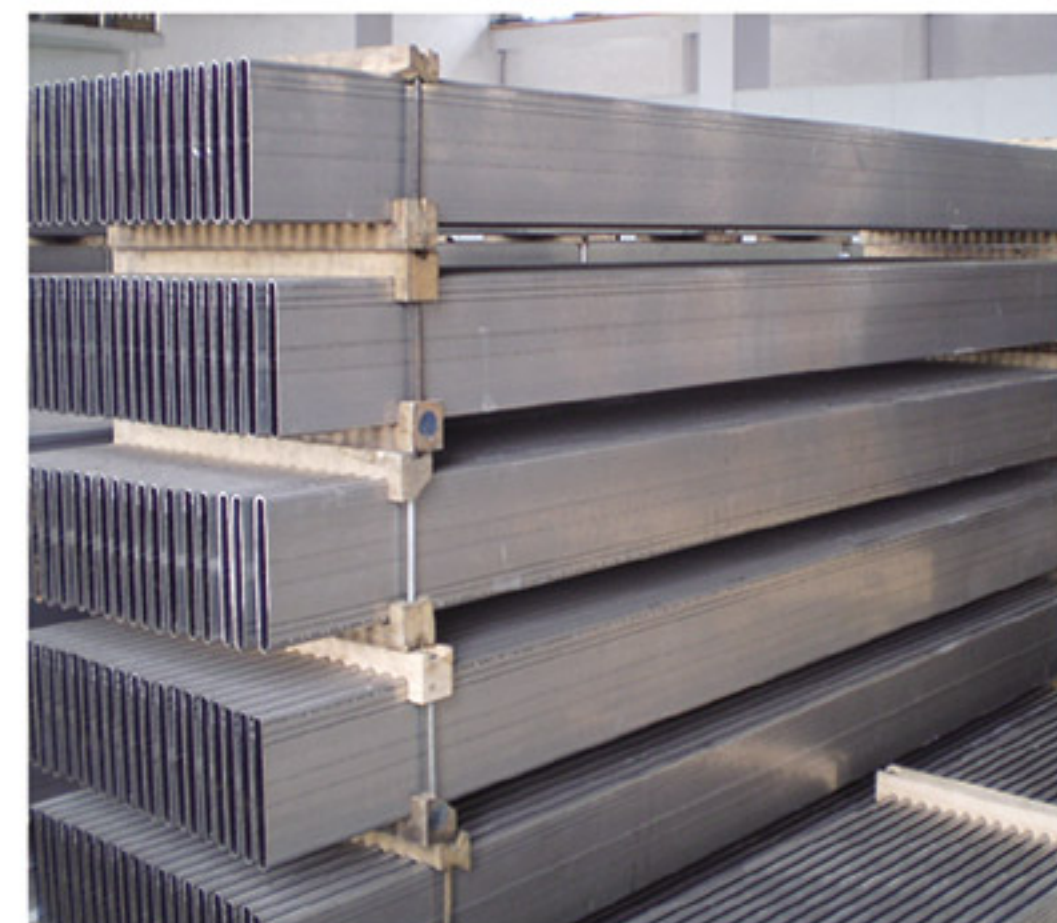
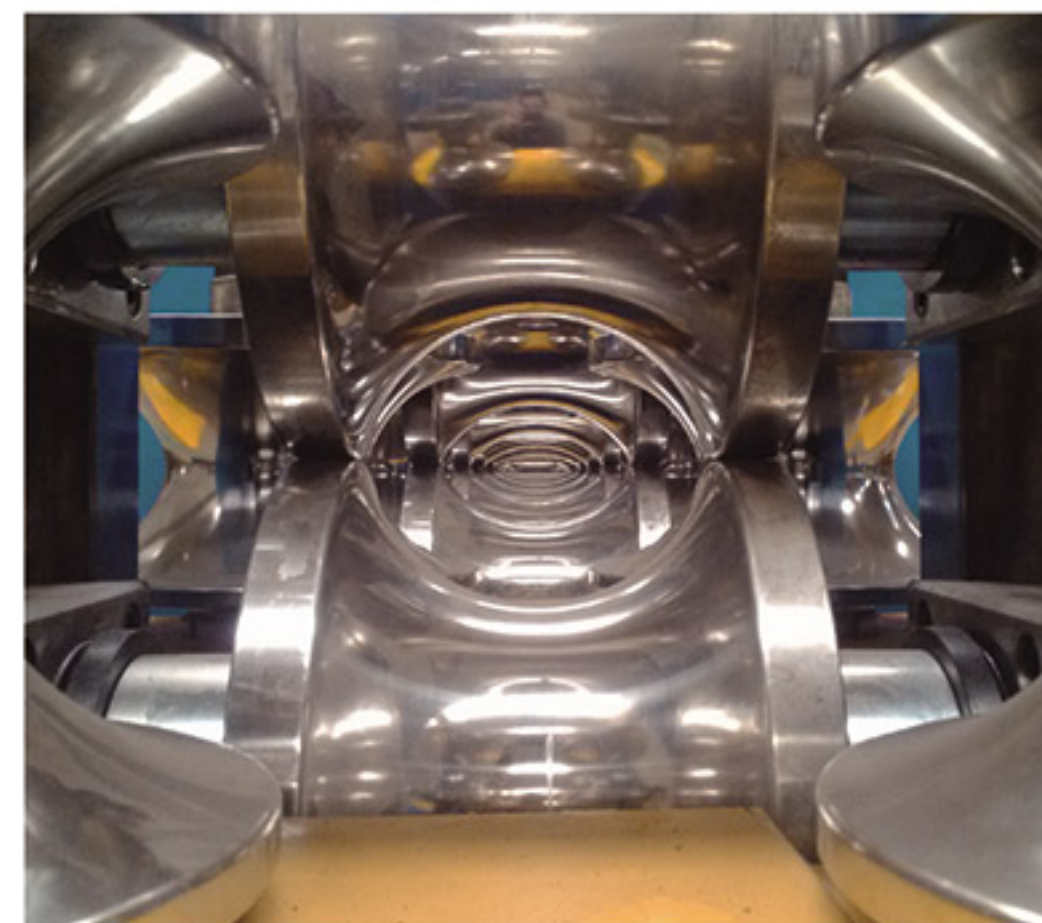
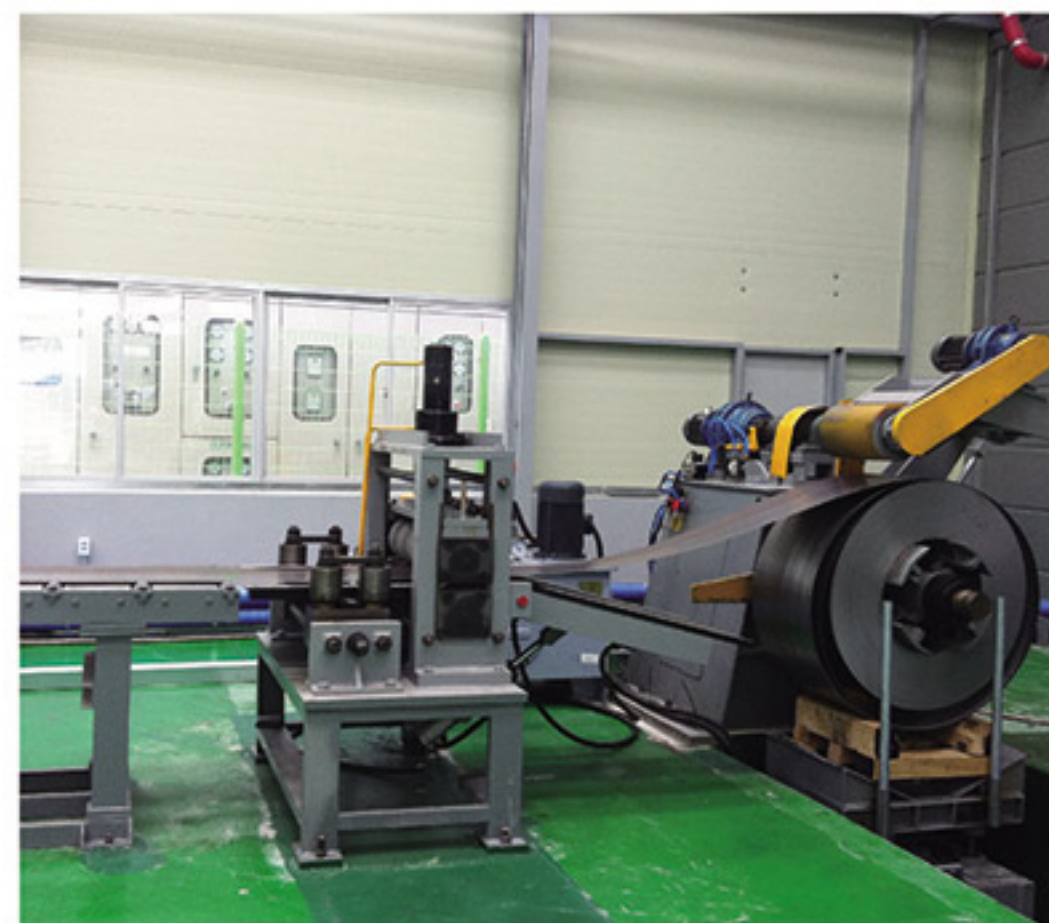
The production of square/rectangular pipes adopt the combined roller and panel construction . One set of roller can cover most of the sizes and share 90% of the roller.The roller adopting the panel construction contact with the strip deformation region, which can reduce the contact area ,the friction and power consumption of forming roller . At the same time it can save about 4% strip width.



空冷器（岛）制管生产线 AIR CONDENSER PIPE PRODUCTION LINE



空冷器（岛）制管生产线是用于生产 $219 \times 19 \times 1.5\text{MM}$ 的单面镀铝扁管的专用设备，主要应用于电站、化工、制药等领域的技术。
The condenser pipe production line is designed to produce the condenser pipe with aluminium layer in the size of $219 \times 19 \times 1.5\text{mm}$. This kind of pipe can mainly apply to the air-cooling technology in the field such as power station, steel plant, chemical industry and pharmacy.



精密不锈钢管生产线 PRECISION STAINLESS STEEL PIPE PRODUCTION LINE

精密不锈钢管生产线是用于生产工业不锈钢焊管的专用设备。该生产线要求加工精度和装配精度较高，全部采用高精度数控机床加工，成型、定径机架具有快换功能及数显功能，以及西门子 PLC 控制系统的应用大大提高了焊管的成材率和设备运行稳定性。

High-precision stainless steel & titanium pipe mill line is specially designed to produce the industrial stainless pipe and titanium pipe, which can be widely applied in aviation, aerospace, nuclear power, power stations, oil refining, seawater desalination and other high-end pipe making field. This production line needs high manufacturing and assembly precision and will be machined on CNC machine tools; The quick change system of forming & sizing mill and Siemens control system improve the production efficiency and running stability a lot.



冷弯型钢生产线

COLD ROLL FORMING SECTIONAL
STEEL PRODUCTION LINE

◆◆ 辊弯成型型钢生产线用于将冷轧或热轧带钢经辊弯成型制成各种截面形状尺寸型钢的设备，可以生产 C 型钢、U 型钢、L 型、高速公路护栏板等开口型钢，也可生产在隧道施工和其他地基施工中用来固定土方的各种型号规格钢板桩产品。生产中还可与冲孔等工艺配合，以满足不同的需要。

Cold forming section steel production line is used to roll and form cold & hot rolling steel into all kinds of open cold - forming sectional steel like C-shaped steel, U-shaped steel, L-shaped steel and guard fence plates of freeway, etc. This line can also produce the different sizes of steel sheet piling used in the tunnel construction and foundation construction field. At the same time, it can work matching with the relative punching machine to satisfy more different requirement of clients.



大厚径比异型管生产线

SPECIAL WELDED PIPE PRODUCTION LINE

◆◆ 大口径薄壁、小口径厚壁焊管的成型是制管技术领域的两个难点，比标准管要困难的多。由于壁厚与外径之比较小或较大，在生产薄壁管时，在成型过程的后期，由于边缘的不稳定性就会在边缘形成“鼓包”，从而影响高频焊接，易产生搭焊、漏焊和缺焊；在生产厚壁管时，变形强度较高，焊缝控制难度加大，针对于这两种管的特点，我们进行了深入的技术研究和实践，采用特殊的孔型设计和架次分配，使带钢的变形更趋稳定，从而生产合格的管子。

我公司开发的 $\varnothing 76 \times 5\text{MM}$ 机组， $\varnothing 114 \times 1.0\text{MM}$ 、 $\varnothing 165 \times 1.2\text{MM}$ 机组在宝钢及湖北楚胜公司一次性试车成功，为用户提供了高品质高附加值的焊管产品。

It is the difficulty in the pipe making field to form successfully the pipe in large diameter with light thickness or small diameter with heavy thickness, which is more difficult than producing the normal pipe. As the thickness-to-radius ratio is so bigger or smaller, when producing them, it is easy to result of the wave of welding edge or difficult to control the welding respectively so as to influence the welding quality. According to the above situation, we hammered and designed the line with new special pass and stand distribution to guarantee the forming steadily by lots of test and practice. So that the user can produce the quality pipe.

We have supplied the pipe mill lines of $\varnothing 76 \times 5\text{mm}$, $\varnothing 114 \times 1.0\text{mm}$ and $\varnothing 165 \times 1.2\text{mm}$ for Bao steel and Hubei Chusheng Company respectively ,and we got the success on one-off commissioning, and make the user has the ability of producing the high-profit and high-quality pipes.

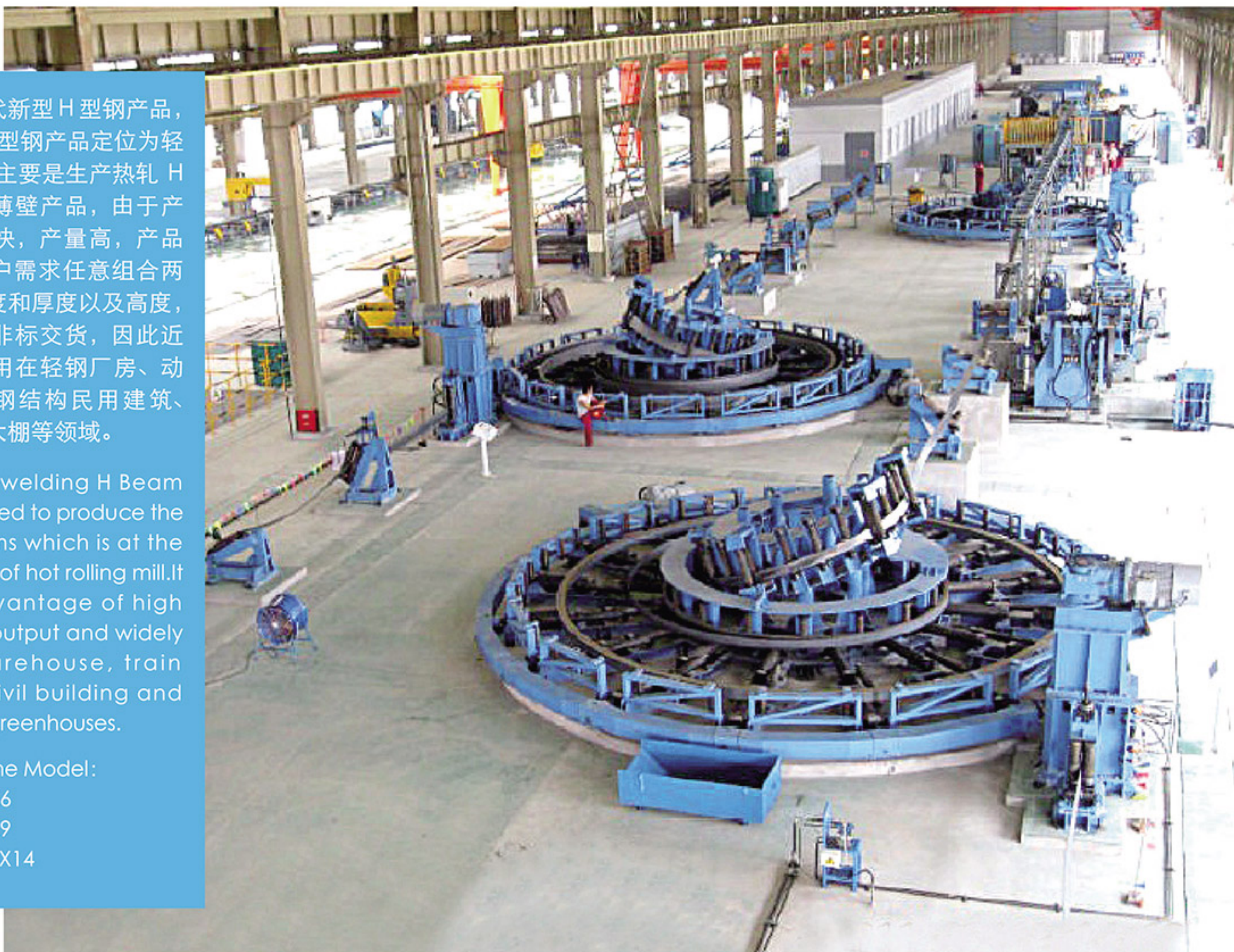


高频焊接H型钢生产线 HF WELDED H BEAM PRODUCTION LINE

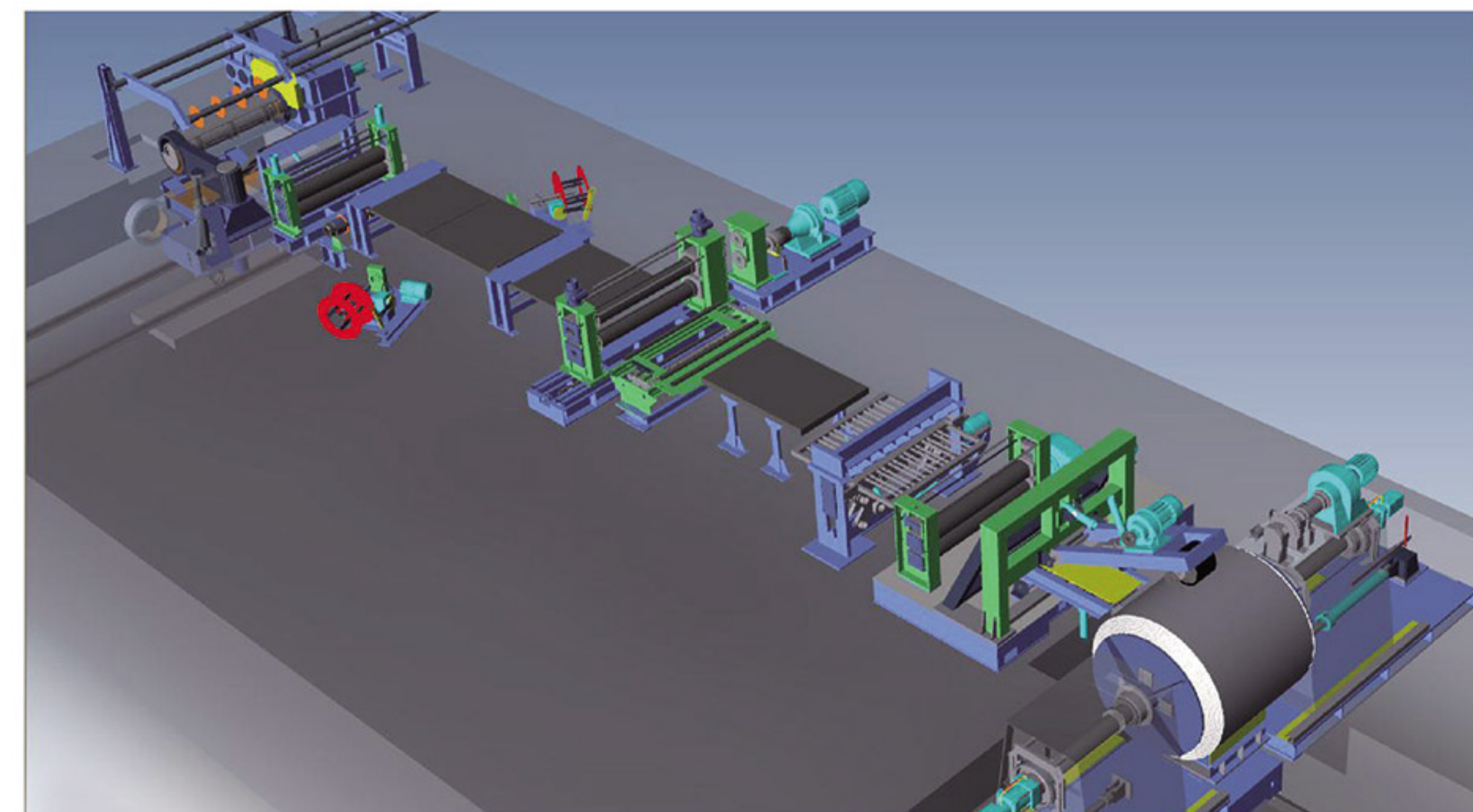
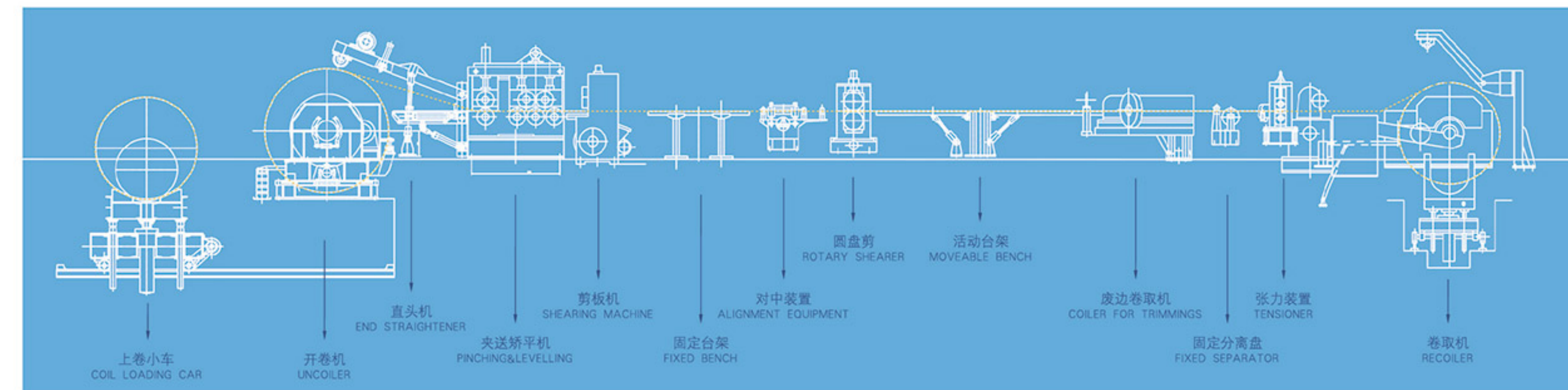
作为现代新型H型钢产品，高频焊接H型钢产品定位为轻型H型钢，主要是生产热轧H型钢的下限薄壁产品，由于产品生产速度快，产量高，产品可以按照客户需求任意组合两个翼板的宽度和厚度以及高度，且长度定尺非标交货，因此近些年广泛应用在轻钢厂房、动车站台、轻钢结构民用建筑、现代化农业大棚等领域。

The new HF welding H Beam Line is designed to produce the light H beams which is at the bottom sizes of hot rolling mill. It has the advantage of high speed and output and widely used in warehouse, train platform, civil building and agricultural greenhouses.

生产线型号 Line Model:
H-250X100/4X6
H-500X300/6X9
H-600X300/10X14



纵剪生产线 COIL SLITTING LINE



本机组是将成卷的冷轧或热轧宽幅带钢延长度方向，剪切成若干条给定宽度的钢带，然后再卷成钢带卷，为轧制焊管、冷弯型钢及其他用途而作材料准备。根据需要还可以和横剪设备配套使用。

The slitting line is designed to shear hot & cold rolling steel coil of large width into sub-strips of desired width along the longitudinal direction and roll them into coils as the material of forming pipe and sectional steel and other profile. The slitting line is used to match with cutting-into-length machine according to the different requirement of clients.

服务中心 SERVICE CENTER

03

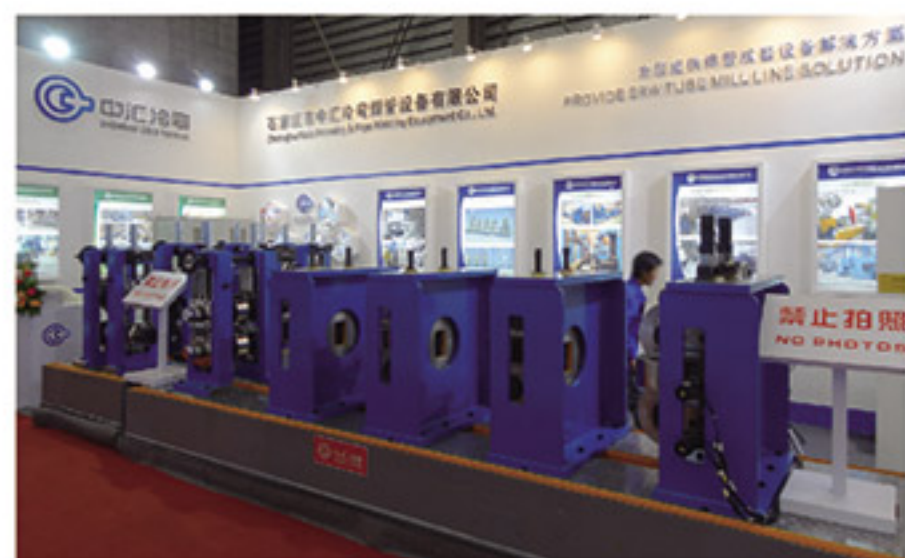


杜塞尔多夫国际管材展

DUSSELDORF TUBE FAIR



2010



2012

安装、调试与售后服务 INSTALLATION & COMMISSIONING AND AFTER-SALES SERVICE



辅助设备及配件 AUXILIARY EQUIPMENTS AND SPARES



螺杆式空压机
Screw Compressor



活塞式空压机
Air Compressor



储气罐
Air Tank



水泵
Water Pump



内毛刺刮刀
Inner Burr Scraper



磨齿机
Gear Grinding Machine



磨齿机
Gear Grinding Machine



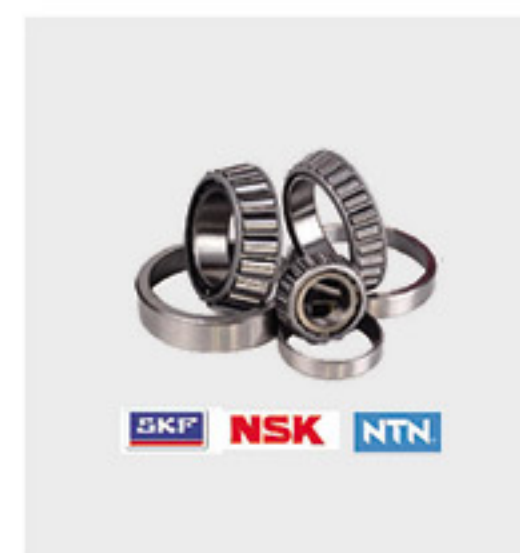
立式砂轮机
Vertical Hand Grinder



磁棒
Magnetic Bar



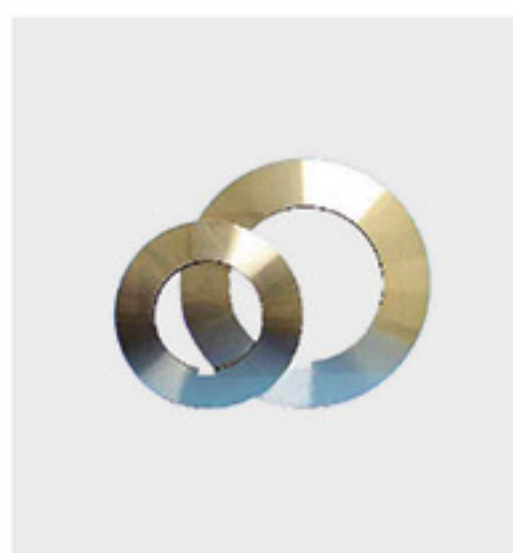
模具
Rolls



轴承
Bearing



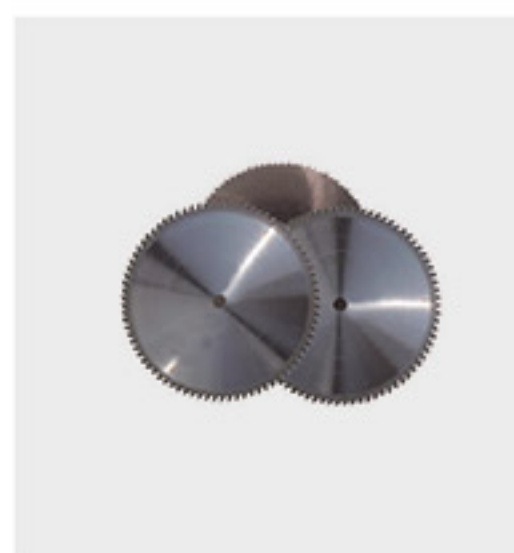
阻抗器
Impedor



纵剪刀片
Slitting Knives



隔套
Sleeve



锯片
Saw Blades

设备选型参考
EQUIPMENT SELECTION OF REFERENCE

MODEL	带钢材质RAW MATERIAL: $\Sigma B \leq 580\text{MPa}$, $\Sigma S \leq 350\text{MPa}$ 的碳素钢及低合金钢LOW CARBON STEEL AND ALLOY STEEL $\leq X80$				生产速度 FORMING SPEED (M/MIN)
	圆管规格 SPECIFICATIONS OF ROUND PIPE		方矩形管规格 SPECIFICATIONS OF SQUARE & RECTANGLE PIPE		
	管径 DIAMETER RANGE (MM)	壁厚 THICKNESS RANGE (MM)	OD管径 DIAMETER RANGE (MM)	壁厚 THICKNESS RANGE (MM)	
HG20	Ø8~ Ø25	0.5~1.2	10×10~20×20	0.5~1.0	20~100
HG32	Ø12~ Ø38	0.6~2.2	10×10~25×25	0.6~1.8	20~100
HG50	Ø12~ Ø50	0.8~3.0	15×15~40×40	0.8~2.5	20~80/120
HG60	Ø12~ Ø63	0.8~3.5	15×15~50×50	0.8~3.0	20~80/120
HG76	Ø21~ Ø76	1.0~4.0	20×20~60×60	1.0~3.5	20~80/120
HG89	Ø33~ Ø89	1.5~4.5	25×25~70×70	1.5~4.0	20~70
HG114	Ø48~ Ø114	1.5~5.0	40×40~90×90	1.5~4.5	20~60
HG140	Ø48~ Ø140	1.5~5.5	40×40~110×110	1.5~5.0	20~60
HG165	Ø60~ Ø165	2.0~6.0	50×50~130×130	2.0~5.5	10~45
HG219	Ø89~ Ø219	3.0~8.0	70×70~180×180	3.0~7.0	10~35
HG273	Ø114~ Ø273	5.0~10.0	100×100~200×200	4.0~8.0	10~35
HG325	Ø165~ Ø325	6.0~12.0	120×120~250×250	6.0~10.0	10~30
HG426	Ø219~ Ø426	8.0~14.0	150×150~300×300	8.0~12.0	10~30
HG508	Ø273~ Ø508	10.0~16.0	200×200~400×400	10.0~16.0	10~20
HG630	Ø325~ Ø630	12.0~20.0	250×250~500×500	12.0~20.0	10~20

MODEL	带钢材质RAW MATERIAL: $\Sigma B \leq 580\text{MPa}$, $\Sigma S \leq 350\text{MPa}$ 的碳素钢及低合金钢LOW CARBON STEEL AND ALLOY STEEL $\leq X80$			剪切速度 SLITTING SPEED (M/MIN)
	原材宽度 MATERIAL WIDTH (MM)	带钢壁厚 THICKNESS RANGE (MM)	成品宽度 PRODUCT WIDTH (MM)	
ZJ600	120~600	0.5~2.0	40~580	10~80
ZJ800	120~800	0.7~3.5	40~750	10~80
ZJ1300	400~1300	0.8~4.5	60~1250	10~60
ZJ1600	600~1600	2.0~6.0	60~1550	10~60
ZJ1800	900~1800	3.0~8.0	90~1750	10~60
ZJ1800	1000~1800	3.0~10.0	120~1750	10~40
ZJ2000	1000~2000	6.0~16.0	90~1950	10~30

注：本机组为非标产品，参数表仅供参考，可根据用户要求定制。
NOTE: THE LINE IS NON-STANDARD PRODUCTS AND CAN BE PRODUCED
ACCORDING TO USER REQUIREMENTS, PARAMETERS SHEET FOR REFERENCE ONLY.