

Steel Manufacturing Machines

<u>▲</u> 滝川工業株式会社 TAKIGAWA KOGYO CO.,LTD.





泷川支持炼钢的技术

滝川工业半个多世纪以来一直支持钢铁行业,从事炼钢到出 货的整个钢铁生产流程中的设备开发、设计和制造。 我们根据钢铁产品的形状和尺寸,定制生产包括各工序单独 设备在内的整条精整生产线。

Takigawa's Technology Supporting Steel Manufacturing

For over half a century, Takigawa Kogyo has been supporting the steel industry, engaged in the development, design, and manufacturing of equipment throughout the steelmaking process from refining to shipment. We custom-manufacture entire finishing lines, including individual equipment for each process, tailored to the shape and size of steel products.

向钢材制造各工序供应设备

Equipment Supply for Each Process in Steel Production

Steelmaking

●连铸机辅助设备

Continuous casting machine auxiliary

●钢坯输送装置

Marking equipment

●标记设备

Billet transfer equipment

●加热炉前后设备 Pre and post heating furnace equipment

●钢坯直接输送设备

●定尺机

●冷床 ●钢坯翻转装置 Billet turning device

Billet direct transfer equipment

轧制 ── 精整•检查

Shearing machine Counting machine / Counting and

> ●堆垛装置 (提高质量/防缠绕对策) ●堆垛设备

Stacking device (Quality improvement / Anti-tangling measures) ●不定尺处理设备・ 副尺处理设备

Random length processing equipment / Sub-length processing equipment

○计数机·计数分离机○ 翻转机

Reversing machine separation machine ●组合装置

Pre and post straightening machine / Flaw detection equipme ●倒角设备

(砂轮式/刀具式) Stacking equipment Chamfering equipment (grinding wheel type / cutting tool type)

> ●端面研磨机 (刷式) End surface polishing machine (brush type)

●矫直机・

探伤机前后设备

●电动式捆扎机 ●自动挂标机 Electric binding machine

Automatic tag attachment machine ●各种捆扎机 ●标签贴附机

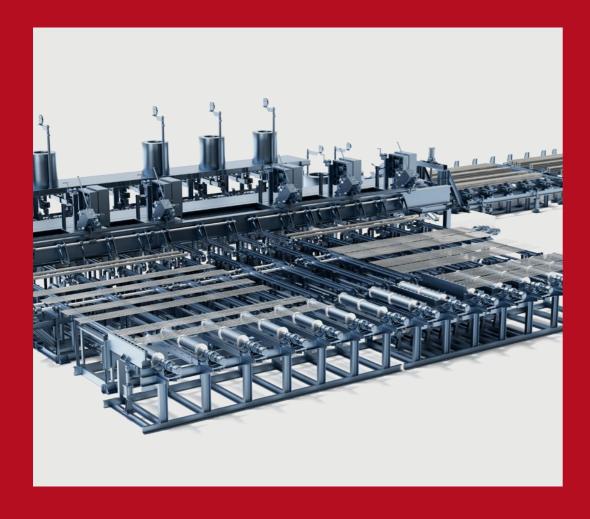
Various binding machines Label application machine

●称重机 ●解捆・排列装置 Unbinding and alignment device Weighing machine ●标签打印机

●零数捆制作装置 Fractional bind production device

从计数到捆扎,再到分类。 用"输送线"助力快速出货。

From counting to binding, and then sorting. Contributes to speedy shipment with "transfer lines."



特点 FEATURES

消除捆扎工序中产生的缠绕(排列混乱•不均)通过

Eliminates tangling (disorder and unevenness in arrangement) that occurs during binding processes

通过计数分离机、电动式捆扎机实现高速•高精度分拣

High-speed, high-precision sorting with counting separator and electric binding machine

通过挂标机确保产品信息的可追溯性

Ensures product information traceability with tag attachment machines

在精整工序中,结合计数与分拣,支持棒钢、圆钢等 产品的出货。我们会根据工厂的空间尺寸提出最佳 设备配置方案。

In the finishing process, we combine counting and sorting to support the shipment of steel bars, round bars, and other products. We propose optimal equipment configurations suited to the factory's spatial dimensions.

ENGINEER'S VOICE

经过反复试验实现的精确性

通过反复进行现场测试和试运行,追求动作的精确性,以防止输送时出现缠绕(像线一样复杂缠绕的状态)。因此,无论何种捆扎设置,都能将钢材顺畅地不缠绕地供给到捆扎机。也能应对根据工厂尺寸和前后设备进行的专用设计。

【堆垛装置】Stacking Equipment

可在同一生产线上处理型钢和棒钢高效"堆垛动作"的工程设计。

Efficient "stacking operation" engineering that can process shaped steel and bar steel on the same line.



特点 FEATURES

可根据各种装载形式进行规格变更

Specification changes possible to accommodate various loading configurations

可在同一生产线上处理型钢和棒钢

Capable of processing shaped steel and steel bars on the same line

通过高效的堆垛动作提高工厂处理能力

Improves factory processing capacity through efficient stacking operations

根据设定的装载形式自动堆垛钢材。已向国内外30 多个轧制工厂交付了适应各种品种和工序的堆垛设备,可根据要求进行开发。

Automatically stacks steel according to the set loading configuration. We have delivered stacking equipment tailored to various grades and processes to over 30 rolling mills domestically and internationally, and can develop systems according to your requirements.

ENGINEER'S VOICE

用机械再现人的动作

实现了以往人工进行的钢材堆垛作业的自动化。同时,还设计了用机械再现将产品翻转并紧密无间隙堆叠的动作。可广泛应对从薄材(3mm)到厚材,并搭载了防止产品重叠的机制。

【捆扎机】 Binding Machine

精整·检查 Finishing / Inspection 捆扎 Binding

从日本首台电动式捆扎机开始, 我们提供先进的"捆扎技术"。

Beginning with Japan's first electric binding machine, we provide advanced "binding technology."



产品目录 LINE UP

- •电动小型捆扎机 Electric small binding machine
- •电动大型捆扎机 Electric large binding machine
- •小型捆扎机 Small binding machine
- •中型捆扎机 Medium binding machine
- •大型捆扎机 Large binding machine
- •双层捆扎机 Double-wrap binding machine
- •顺序捆扎机 Sequential binding machine

我们提供多种捆扎机,包括日本首台采用伺服电机驱 动的电动式捆扎机,以及交付实绩超过700台的液压 式捆扎机等。

We offer a wide range of binding machines, including Japan's first servo motor-driven electric binding machine and hydraulic binding machines with over 700 units delivered.

规格 SPECIFICATIONS

駆動	Туре	电动式 Electric		液压式 Hydraulic		
型式	Model	TBM320E/220E	TBM5100E/570E	ТВМ550Н	TBM5100LW/570LW	TBM5100LT/580LT
捆扎物最大直径	Bundling D.(max)	Φ120mm	Φ550mm/Φ450mm	Ф 300mm	Φ500mm/Φ350mm	Φ600mm/Φ350mm
捆扎物最小直径	Bundling D.(min)	Φ50mm	Ф100mm	Ф 100mm	Φ100mm	Φ 150mm
导向轨道内径	Guidetrack I.D.	200mm	1,000mm/700mm	500mm	1,000mm/700mm	1,000mm/800mm
捆扎时间	Binding cycle	2.5sec	8.5sec/7sec	6.5sec	12sec/9sec	12sec/10sec
使用线材	Applicable wires	3.2mm/2.6mm	5.5mm	5.5mm	5.5mm	5.5mm
主要用途	Bundling material	棒钢 Bar	棒钢,特殊钢 Bar,SBQ	棒钢 Bar	棒钢,特殊钢 Bar,SBQ	棒钢,型钢 Bar,Shape

※除上述线材外,我们也有其他直径和镀层线材类型的交付实绩。

*We had provided some special wires type binding machines. (various OD wires, plated wires, and so on)

【电动式捆扎机】 Electric Binding Machine

特点 FEATURES



维护和操作简便

配备伺服电机,可在触摸屏上调整 动作和收紧力。由此也能减少对产 品的钢丝划伤。

Easy maintenance and operation Equipped with servo motor, allowing adjustment of operation and tightening force on touch panel. This also reduces wire damage to products.

Improved stability and energy efficiency

提高稳定性•节能性

No malfunction due to oil hardening in low temperatures. Therefore, warm-up operation is unnecessary, leading to

作不良。因此无需预热运转,实现



可持续的作业环境

力化外,还可期待降噪,有助于改善 作业环境。

Sustainable work environment

In addition to cost reduction and labor savings from oil-free operation, noise reduction can be expected, achieving optimal tightening condition according to shape and contributing to improved work



指定扭结类型

低温时不会因油脂硬化而导致动 除了不使用油实现降低成本和省 可按类型指定扭结,实现适合形状 和用途的最佳收紧状态。

Twist type specification

【特殊规格捆扎机】 Special Specification Binding Machine

应用标准机型的单元,也开发适应产品尺寸,现有设备的特殊规格捆扎机。

Applying standard model units, we also develop special specification binding machines tailored to product size and existing equipment.

产品目录 LINE UP

Pulp binding machine

•纸浆捆扎机

•线圈捆扎机

Coil binding machine

•平行扭结捆扎机

Parallel twist binding machine



ENGINEER'S VOICE

一台设备应对多种多样的捆扎

从小捆到中捆、大捆、双层卷均实现电动化,有助于节能和省人化。通过使用伺服电机和触摸屏,实现了以往 捆扎机难以实现的细致设置。为避免因捆扎线材的扭结处造成伤害,我们还开发了M扭结(安全的扭结)。

【自动挂标机】 Automatic Tag Attachment Machine

精整·检查 Finishing / Inspection 标签贴附 Tagging

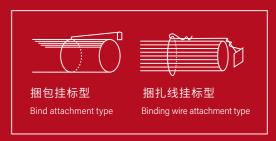
通过"挂标作业"自动化实现省人化和可追溯性。

Achieves labor savings and traceability through automation of "attaching" information.

PC生产管理系统



标签安装示例



ENGINEER'S VOICE

有助于确保可追溯性

可将以往人工进行的圆棒•型钢挂标实现自动化。通过与客户的生产线连接,在读取产品信息的同时自动打 印标签,实现无填写错误的管理。对应包括使用激光的金属标签和标签打印机等各种规格的标签。

精整·检查 Finishing / Inspection 计数·分离 Counting / Separation

用激光和传感器开发高精度"计数系统"。

Developing high-precision "counting systems" with lasers and sensors.



特点 FEATURES

采用双传感器方式的高精度计数系统

High-precision counting system using dual sensor method

可通过AC伺服电机进行可靠控制

Reliable control possible with AC servo motor

通过特殊连杆运动臂实现可靠的分离作业

Reliable separation work with special link motion arm

对棒钢、圆钢进行计数,高速分离至指定数量。通过AC伺 服电机实现可靠控制,可利用传感器和激光进行高精度

Counts steel bars and round bars, and separates them into specified quantities at high speed. Reliable control with AC servo motors enables highly accurate counting using sensors and lasers.

ENGINEER'S VOICE

实现高速且低错误率的设计

有旋转式和位移传感器式两种类型,位移传感器式比旋转式速度更快且不产生交错,实现精确计数。为防止 误检测,在输送入口和出口调整速度以防止重叠,并巧妙设计使产品之间保持间距。

【特殊钢相关设备/炼钢相关设备】

Special Steel Related Equipment / Steelmaking Related Equipment

即使在特殊钢制造和炼钢工序现场, 我们也会根据工厂规划定制设备。

Even in special steel manufacturing and steelmaking processes, we plan original equipment tailored to the factory.

【特殊钢相关设备】 Special Steel Related Equipment

倒角设备

Chamfering equipment

在特殊钢棒钢检查设备 中实施从端面倒角到研磨

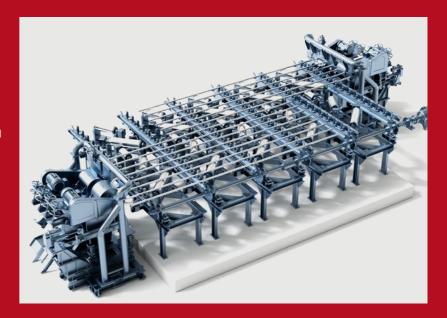
Performs chamfering to grinding of end surfaces with bar steel inspection equipment for special steel

对特殊圆棒钢和管材 进行探伤的辅助设备

Auxiliary equipment for flaw detection of special round bar steel and pipes

探伤机辅助设备

Flaw detection equipment accessories



ENGINEER'S VOICE

适应钢材形状的巧妙技术

实现了在输送钢材的同时进行倒角和端面研磨。仅仅流动会产生不均匀,无法漂亮地倒角,因此根据钢材的 角度和形状进行倾斜等调整。为防止碰到砂轮后弹回的"颤振",在承座上也进行了巧妙设计。

【炼钢相关设备】

Steelmaking Related Equipment

钢坯标记装置

Billet marking equipment

在高温钢坯的端面标记文字以掌握钢材生产履历 Marking characters on the end face of hot billets to

track steel production history

钢坯输送设备

Billet transfer equipment

从连铸机到轧制工厂直接输送钢坯

Direct transfer of billets from continuous casting machine to rolling mill



一切皆为定制。 Everything is custom-made.

统一规格的产品无法满足客户的所有要求。 因此我们为应对细致的需求,所有产品均采用定制制作。

Standardized products cannot fulfill all customer requirements.

That's why we custom-manufacture all products to meet even detailed needs.

01

需求沟通

进行初次洽谈。工程师也会同行,因此可以就用 途、规格等专业问题进行咨询。通过视察现场 提高后续提案的精准度。

03

订单确定

经客户审查后订单成立。此时已经确定设备配 置图等大致图纸(侧面图、布局、机构等)。

05

实际制作

向制造部门出图,开始实际制作。泷川工业拥有 可自行进行从机械加工到涂装、组装的设备。经 过组装、试运转后做好出货准备。

02

客户审查

基于访谈内容,反复提供报价和规格方案供客 户审查。如果客户没有详细规格要求,我们也 会主动提出方案。

04

设计

开始制作详细图纸,进入正式制造阶段。利用丰 富的过往档案等资料,投入总计1,000~5,000小 时进行设计。

06

交付

设计负责人和组装•安装负责人前往进行设备安 装。在客户见证下进行最后的试运行,完成交付。从 开始运转1~3个月后为售后服务再次访问。

公司概要

公司名称 泷川工业株式会社 创业 1943年2月 设立 1948年1月

员工 192人(集团合计201人)

代表 泷川 松平

业务类别 以下业务的设计 · 制作 · 施工 · 组装

> 炼钢设备/食品生产设备/产业机械/搬运机械 省力化机械/大型精密机械/大型冲压/大型钣金

主要许可证 建设业许可 特定建设业

> •管道工程业/机械器具安装工程业 兵库县知事许可第400597号 建设业许可 一般建设业 •钢结构工程业

兵库县知事许可第400597号 起重机制造许可:兵第1014号 压力容器制造许可:兵制认第162号

国际认证取得 ISO9001:2015/ISO14001:2015/ISO45001:2018

ISO9001, ISO14001, ISO45001包含综合认证维持 往来银行 三井住友银行加古川支行 商工组合中央金库姬路支行

三菱东京UFJ银行神户中央支行 百十四银行加古川支行

工厂 营业所所在地

总公司工厂

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加古川营业所

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东京营业所

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厚木工厂

邮编243-0032 神奈川县厚木市恩名5丁目4-27 TEL. +81-46-221-5323 FAX. +81-46-222-1013



公司所在地请点击此处 Company location here



保有设备请点击此处 Equipment details here

泷川集团的SDGs(可持续发展目标)倡议

我们的生活不仅建立在衣・食・住等基本生活方式上,还通过各种文化・经济活动构成。在这些文化・经济活动中不言而喻产业机械生产的产品必不可少。作 为产业机械制造商的我们泷川工业,在致力于此类产品制造以追求客户满意度最大化的同时,通过积极利用可再生能源等可持续举措的业务活动,为实现 SDGs做出贡献。我们认为持续这些举措是作为负责任的企业公民应履行的地区•社会贡献活动之一。

Our lives are built not only on basic lifestyle patterns such as clothing, food, and housing, but also through various cultural and economic activities. It goes without saying that products generated from industrial machinery are indispensable in these cultural and economic activities. As an industrial machinery manufacturer, Takigawa Kogyo aims to maximize customer satisfaction by engaging in such product manufacturing, while contributing to achieving SDGs through business activities based on sustainable initiatives such as active use of renewable energy. We believe that continuing these initiatives is one of the regional and social contribution activities that should be fulfilled as a responsible corporate citizen.

■通过应对环境问题为社会做贡献

Social contribution through

■通过充实员工教育为社会做贡献 Social contribution through enhanced employee education























■通过技术革新为社会做贡献

Social contribution through



