

Research, Development and Innovation 研发与创新



公司始终立足新产品和新技术的研发与创新，荣获国家 34 项专利证书。

We have been always developing and innovating new products and technology, awarded national 34 different Patent Certificate.



国内第 1 条芳纶带增强缠绕生产线
国内第 1 条碳纤维增强缠绕生产线
国内第 1 条不锈钢带骨架层锁扣机
国内第 1 条承压层钢带增强铠装机

Processing and Manufacturing 加工与制造



公司拥有数控加工中心、大型卧式车床、大型立式车床、滚齿机、磨齿机、大型喷丸机等先进加工和热处理装备以及探伤仪、动平衡仪、测试平台、计标机采集分析系统等一批先进的检测设备。



Main Products and Catalogue 主导产品目录

01 RTP 复合管道增强缠绕设备

RTP Composite Pipeline Reinforced Winding Machine

RTP 芳纶带、玻璃纤维带缠绕设备

RTP Aramid Tape, Glass Fiber Tape Winding Machine

六带盘缠绕设备 Six-pat Winding Machine	01-02
四带盘缠绕设备 Four-pat Winding Machine	01-02
二带盘缠绕设备 Two-pat Winding Machine	03

RTP 工业涤纶长丝、碳纤维丝缠绕设备

RTP Polyester filament Yarns, Carbon Fiber Yarn Winding Machine

RTP 金属丝缠绕设备	05
RTP Metal Wire Winding Machine	



02 海洋柔性管道增强铠装设备

Marine flexible pipeline reinforced armoring Machine

骨架层不锈钢带锁扣机

Framework layer stainless steel tape inter-locking machine

承压层钢带铠装机	07
Pressure bearing layer steel tape armoring machine	
承压层异形钢条锁扣铠装机	08
Pressure bearing layer profiled steel strip inter-locking armoring machine	
抗拉层 $\Phi 630/80+80$ 扁钢条框式铠装机	09
Tensile layer $\Phi 630/80+80$ flat steel strip Rigid type armoring machine	
抗拉层 $\Phi 630/80+80$ 钢丝、钢丝绳笼式铠装机	10
Tensile layer $\Phi 630/80+80$ steel wire, steel rope planetary type armoring machine	



03 各种类型收、放管装置及储管池系统、牵引装置

All kinds of Pipe Pay off device, Take up device, Pipe Accumulate system, Caterpillar etc.

固定、移动式地辊收、放管机

Fixed type, Movable type Under Roller type Pipe Pay off device, Take up device

端轴式收、放管机	11
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龙门移动式收、放管机	11
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地转盘储管池系统	12
Turntable Pipe Accumulate system	
多履带牵引装置	12
Multi-crawler caterpillar	
大吨位液压履带牵引装置	12
Large-tonnage hydraulic Caterpillar Device	



RTP 复合管道芳纶带增强缠绕设备

RTP composite pipeline aramid tape reinforced winding machine

专利产品

设备主要用于在高压复合软管外部缠绕芳纶带，内管经过芳纶带二层缠绕增强，加热固化后形成复合管芯。

It is mainly used for winding the aramid fiber on the high-pressure composite hose, inner hose reinforced by second layer aramid fiber, composite pipe core is formed after heat curing.

主要特点

每个带盘放带张力采用闭环控制，可实现满盘到空盘的芳纶带放带张力恒定。机体内部采用远红外加热器，加热温度自动跟踪线速度并保持恒定。

Main Features

each pad pay off tension adopt closed loop control, which can realize full pad to empty pad of aramid fiber pay off tension constant.

Inner adopt far infrared heater, heating temperature automatic tracking the line speed and keep constant.



主要技术参数

1. 芳纶带规格: 宽度 × 厚度 = (20 ~ 150) × (0.6 ~ 1.5)mm
2. 缠绕带盘数量: 4 盘、6 盘
3. 缠绕带盘规格: $\phi 1800 \sim \phi 1200$ (外径) × $\phi 200$ (内径) × 20 ~ 150 (宽度) mm
4. 缠绕管外径: $\phi 76 \sim \phi 400$ mm
5. 设备中心高: 1100

Main Technical Specification

1. Aramid fiber size: Width × Thickness = (20~150) × (0.6~1.5) mm
2. Pad QTY: 4Pads, 6Pads
3. Pad Size: $\phi 1800 \sim \phi 1200$ (OD) × $\phi 200$ (ID) × 20~150(WIDTH) mm
4. Pipe Outer Diameter: $\phi 76 \sim \phi 400$ mm
5. Central height: 1100

RTP 复合管道芳纶带增强缠绕设备

RTP composite pipeline aramid tape reinforced winding machine

专利产品



输管系统
The pipeline transportation system

输管系统
The pipeline transportation system



模拟海底暗涌造浪试验
Simulated submarine undercurrents and making wave test



扭曲试验
Torsion Test

RTP 复合管道 玻璃纤维带 增强缠绕设备

RTP composite pipeline glass fiber tape reinforced winding machine

专利产品

设备主要用于在高压复合软管外部多层缠绕玻纤增强带，并通过多层加热熔接的方式将玻纤带粘合在内管外壁上，形成完全结合成一体性实壁结构。

It is mainly used for winding multilayer of glass fiber reinforced on the outer layer of high-pressure composite hose, through multilayer hot melt method stick the glass fiber on the outer wall of inner pipe, to forming a fully combined solid wall structure.

主要特点

每个带盘放带张力采用 ZF 磁滞张力控制，实现从满盘至空盘放带张力的恒定。机体内部采用远红外加热器，加热温度自动跟踪线速度并保持恒定。

Main Features

Each pad pay off tension adopt ZF hysteresis tension control, which can realize full pad to empty pad pay off tension constant. Inner adopt far infrared heater, heating temperature automatic tracking the line speed and keep constant.



主要技术参数

- 1、玻纤带规格：宽度 X 厚度=(40 ~ 150) X 0.3mm
- 2、玻纤带盘数量：2 盘
- 3、缠绕管外径：φ76 ~ φ160mm
- 4、缠绕机最高转速：30r/min
- 5、设备中心高：1000mm

Main Technical Specification

1. Glass fiber size: width x thickness=(40~150)X0.3mm
2. Pad QTY: 2 pads
3. Pipe outer diameter: φ76~φ160mm
4. Max speed of winding machine: 30r/min
5. Central height: 1000mm



RTP 复合管道 工业涤纶长丝，碳纤维丝 平面式缠绕机

RTP Composite pipeline polyester filament yarns, carbon fiber yarns plane type winding machine

设备主要用于在高压复合软管外部缠绕工业涤纶长丝或碳纤维长丝增强材料。

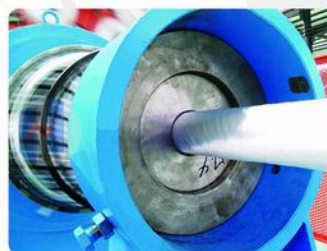
It is mainly used for winding reinforced material such as industrial polyester filament yarns or carbon fiber yarns on the outer layer of high-pressure composite hose.

主要特点

放丝采用机械张力控制，大小可以调节，放丝张力保持基本一致。

Main Features

Pay off tension adopt mechanical tension control, which can be adjustable and tension constant.



主要技术参数

- 1、涤纶工业长丝断裂张力：2200N
- 2、满锭重量：16KG
- 3、缠绕管外径：φ50 ~ φ200mm
- 4、缠绕机最高转速：60r/min
- 5、设备中心高：1500mm



Main Technical Specification

1. Breaking tension of industrial polyester filament yarns: 2200N
2. Full spindle weight: 16KG
3. Pipe outer diameter: φ50~φ200mm
4. Max speed of winding machine: 60r/min
5. Central height: 1500mm

RTP 复合管道 钢丝平面式缠绕机

RTP composite pipeline steel wire plane type winding machine

设备主要用于在高压复合软管外部缠绕钢丝增强材料。

It is mainly used for winding reinforced material such as steel wire on the outer layer of high-pressure composite hose.

主要特点

放丝采用机械张力控制，大小可以调节，放丝张力保持基本一致。

Main Features

Pay off tension adopt mechanical tension control, which can be adjustable and tension constant.



主要技术参数

1. 钢丝单线直径: 0.7 ~ 2.2mm
2. 缠绕管外径: $\phi 60 \sim \phi 320$ mm
3. 绞体最高转速: 20r/min
4. 设备中心高: 1200mm

Main Technical Specification

1. Single wire diameter of steel wire: 0.7~2.2mm
2. Pipe outer diameter: $\phi 60 \sim \phi 320$ mm
3. Max speed of winding machine: 20r/min
4. Central height: 1200mm



● $\phi 400/216B+216B$

海洋柔性管道 骨架层不锈钢带锁扣机

Marine flexible pipeline framework layer stainless steel tape lock arming machine

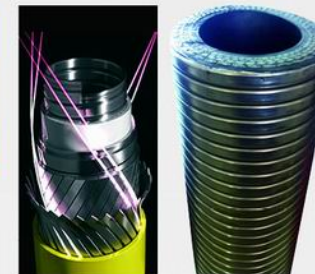
专利产品

设备主要用于高压软管骨架层内衬管及外保护管的制造。它将不锈钢带轧制成形后卷绕并压制成交互锁结构软管。

It is mainly used for manufacturing the high-pressure hose framework layer Lining tube and outer protection tube. Forming the stainless steel tape then rolling forming and compressed into interlocking structure.

主要技术参数

1. 制造管径范围: $\phi 75 \sim \phi 420$ mm
2. 不锈钢带宽度: 40 ~ 72mm
3. 不锈钢带厚度: 0.5 ~ 2mm
4. 不锈钢带材质: 304、316、316L
5. 最大生产线速度: 0.6m/min



Main Features

1. Manufacturing pipe diameter range: $\phi 75 \sim \phi 420$ mm
2. Width of Stainless steel tape: 40~72mm
3. Thickness of Stainless steel tape: 0.5~2mm
4. Grade of Stainless steel tape: 304, 316, 316L
5. Max production line speed: 0.6m/min



05/06

海洋柔性管道 承压层钢带 铠装机

Marine flexible pipeline pressure bearing layer steel tape armoring machine

设备主要用于高压软管承压钢带层的铠装。

It is mainly use for armoring the steel tape layer of high-pressure hose.

主要特点

主动恒张力放带，并在触摸屏上显示张力值。

Main Features

Initiative constant tension pay off and also can display the tension data on the touch screen.



钢带层
Steel tape layer



主要技术参数

- 1、产品规格：φ90 ~ φ350mm
- 2、钢带盘数量：2 盘
- 3、钢带宽度：20 ~ 95mm
- 4、钢带厚度：0.5 ~ 1.5mm
- 5、最高转速：18 r/min

Main Technical Specification

1. Product specification: φ75 ~ φ420mm
2. Pad QTY of steel tape: 2 pads
3. Width of steel tape: 20~95mm
4. Thickness of steel tape: 0.5~1.5mm
5. Max rotating speed: 18r/min



海洋柔性管道 承压层异型钢条 锁扣铠装机

Marine flexible pipeline pressure bearing layer profiled steel strip inter-locking armoring machine

设备主要用于海洋立管承压层异形钢条锁扣铠装，它将轧制成型后的异形钢条卷绕并成互锁结构软管。

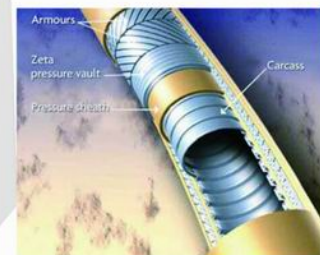
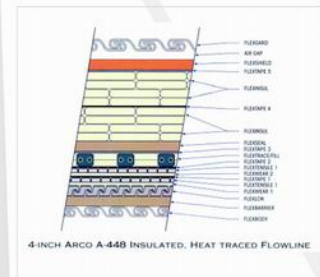
It is mainly used for Marine Riser pressure bearing layer profiled steel strip inter-locking armoring. Forming the profiled steel strip then rolling forming and compressed into interlocking structure.

主要技术参数

- 1、制造管径范围：φ75 ~ φ420mm
- 2、异形钢条规格：宽 X 厚 = 11X4.8 ~ 27X12mm
- 3、异形钢条线盘规格：外径 X 内径 X 内宽 = φ1200X φ600X1700mm
- 4、绞体最高转速：40r/min

Main Technical Specification

1. Manufacturing pipe diameter range: φ75 ~ φ420mm
2. Profiled steel strip: Width x Thickness = 11x4.8 ~ 27x12mm
3. Reel size of profiled steel strip:
OD x ID x Inner Width = φ1200 x φ600 x 1700mm
4. Max rotating speed of cage: 40r/min



异形钢条
Profiled steel strip



海洋柔性管道 抗拉层扁钢条 框式铠装机

Marine flexible pipeline tensile layer flat steel strip Rigid Stranding Machine

设备主要用于海洋柔性软管抗拉层扁钢条铠装。

It is mainly used for marine flexible hose tensile layer flat steel strip armoring.

主要特点

钢条放线采用气动张力控制，大小可调。

Main Features

Steel strip pay off adopt pneumatic tension control and can be adjust.



φ 630 / 80+80

主要技术参数

- 1、制造管径范围：φ 75 ~ φ 420mm
- 2、钢条规格（宽度×厚度）：5X2 ~ 14X7mm
- 3、扁钢条数量：80+80 盘
- 4、扁钢条装盘规格：φ 630
- 5、铠装机最高转速：15r/min

Main Technical Specification

1. Manufacturing pipe diameter range: φ75~φ420mm
2. steel strip size(width x thickness): 5X2~14X7mm
3. Flat steel strip QTY: 80 + 80
4. Reel size of flat steel strip: φ630
5. Max rotating speed of a rmoreing machine: 15r/min



海洋柔性管道 钢丝、钢丝绳 笼式铠装机

Marine flexible pipeline steel wire, steel rope planetary type armoring machine

设备主要用于海洋柔性软管钢丝或钢丝绳增强铠装。

It is mainly used for marine flexible hose steel wire or steel rope reinforced armoring.

主要特点

机械反馈恒张力控制放丝张力，笼体内各放丝盘 100% 退扭，可消除钢丝应力。

Main Features

Mechanical feedback constant tension control the pay off tension, each pay off in cage 100% back-twist and steel wire can stress relief.



φ 630 / 80+80 钢丝铠装机
φ 630/80+80 Steel wire armoring machine

φ 630 / 50+60 钢丝绳铠装机
φ 630/50+60 Steel rope armoring machine



主要技术参数

- 1、制造管径范围：φ 75 ~ φ 420mm
- 2、钢丝、钢丝绳直径：1.2 ~ 6.0 mm
- 3、钢丝数量：80+80 盘
- 4、钢丝、钢丝绳装盘规格：φ 500、φ 630、φ 710
- 5、绞机最高转速：15r/min

Main Technical Specification

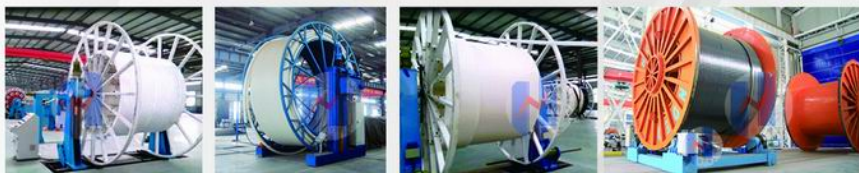
1. Manufacturing pipe diameter range: φ75~φ420mm
2. Steel wire steel rope diameter: 1.2~6.0mm
3. Steel wire QTY: 80 + 80
4. Reel size of Steel wire steel rope: φ500, φ630, φ710
5. Max rotating speed of cage: 15r/min

端轴式、龙门式、地辊式收、放管装置

Pintle type, portal type, under roller type pipe pay off and take up device



φ 10 米、载重 50T
φ 10 Meter, load 300T



龙门式
Portal type

端轴式
Pintle type

φ 10 米、载重 300T 地辊
φ 10 Meter, load 300T under roller

储管、铺管转盘及牵引装置

Pipe accumulate, pipe-laying turntable and caterpillar device



φ 25 米、载重 7000T
φ 25 meter, load 7000T

φ 15 米、载重 2000T
φ 15 meter, load 2000T

φ 20 米、载重 4000T
φ 20 meter, load 4000T

φ 10 米、载重 200T
φ 10 meter, load 200T



液压式牵引
Hydraulic caterpillar

多履带式牵引
Multi-crawler caterpillar