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## SHIJIAZHUANG ZHONGTAI PIPE TECHNOLOGY DEVELOPMENT CO., LTD

China Professional Manufacturer Of Pipe / Tube Mill





# CATALOGUE

## ABSTRACT HISTORY Business philosophy Service

## PRODUCT TECHNIQUE .....

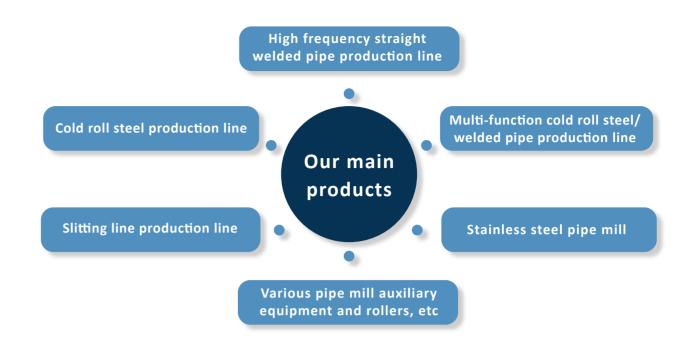
ZTF Forming Process
Multi-functional Tube Production Line
Quick-change System
Direct Square to Square Pipe Mill
XZTF Round-to-Square Pipe Mill
Model List

## Our sales

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Shijiazhuang Zhongtai Pipe Technology Development Co., Ltd.was established in 2000 locating in Shijiazhuang, the capital city of Hebei Province. Adjacent to Beijing, we are endowed with convenient transportation and many geographical benefits. With the combination of R&D, production, sales, and service, our technicians work stably with precise working style. The factory covers an area of 67,000 square



meters, consisting of moulding workshop, machining workshop, assembly workshop, and heat treatment workshop.Based on the principle of high efficiency & people-oriented service, our company scale expands steadily during the past decades. Now with our products sold across the country and around the globe, our company has become a scaled manufacturer in the welded pipeline production field.







**FINISHED PRODUCT** 

#### **APPLICATION**

Shijiazhuang Zhongtai Pipe Technology Development Co., Ltd



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## **HISTORY**

In 2001, a 150×150 tube mill was manufactured for Wuxi HengFa Color Coated Steel Sheets Co., LTD China's first directly square straight welded pipe production line.

## 2001

In 2004, the 273mm ZTF ( ZhongTai Flexible Forming) -1 pipe mill was manufactured for Tianjin Zhongshun Steel Pipe Factory.

China's first welded pipe production line by using ZTF Technology.

2004

In 2006, China's first stainless steel production line specialized for Railway Rail.

The 200×200mm special stainless steel sharp angle steel production line was manufactured for Shanxi Steel Group.

2006

In 2008, ZTZG became an example company of Chinese Credit Rating System.

2008

2007 In 2007, the 1500mm cold roll broad steel pipe mill was manu-

factured for Wanhui Group. China's First Broad Steel Sheet Pile Equipment production line.

In 2010, passed ISO9001 Quality System Certification; Participated in the compilation of a number of industry standards.

"XZTF" technology won the China Cold Roll Forming Steel Technology Innovation Award.

in Tianjin by ZTZG.

Russia's Tempo-NTZ.

#### 2010

2009

In 2009, registered the license for import

and export.

## 2000

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In 2000, established Shijiazhuang Zhongtai Tube Technology Development Co., LTD.

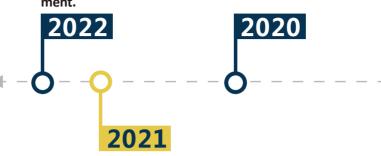
## 2003

In 2003, China's first multi-functional welded pipe production line has been manufactured for KISC SSM. LW1200 multi-function cold roll welded pipe production line manufactured for Yunnan Kunming Steel Company. Won the "Tube Mill Technological Innovation Price" of that year. In 2005, The 426mm ERW pipe mill was manufactured for SUIA Fastube. China's first API pipe produc-



In 2022. China's first direct advanced version square forming pipe line with fully-automatic adjustment.

In 2020, ZTZG signed the largest stainless steel double weld seams 862 pipe production line in China.



- In 2019, China's first round-to-square shared roller production line.
- The F80X8 round-to-square shared roller forming process equipment was put into use in Tangshan Shunjie Cold Roll Forming Steel Co., LTD.



In 2018, ZTZG obtained over 10 patents within a year, which shocked the industry. Chinese first new direct square forming 500×500mm production line was signed

2018

China's first straight welded API pipe production line with OD 720mm. Straight seam welded API pipe production line with OD 720mm designed for



In 2015, China's first direct square forming pipe line with fully-automatic adjustment China's first computer-controlled online roll position adjustment direct square production line (compatible with round tube and square tube) was successfully tested in Turkey.

# 2011-2013

From 2011 to 2013, 100 mu of land was purchased for the construction of new workshops, and the comprehensive processing workshop was completed and put into use.



2015

## **Business Philosophy**



Honesty is the cornerstone

Take customer satisfaction as the criterion

Driven by technological innovation

In the pursuit of casting quality

## **Service**

#### **1.Warranty service**

- (1) free timely replacement within the warranty period
- (2) Lifelong responsibility for quality maintenance period

#### 2.Technical services

- (1) Installation and debugging
- (2) Technical support

#### **3.Personnel services**

- (1) One to one service
- (2) Uninterrupted website stationing

#### 4.Response time

- (1) Timely response within one hour
- (2) after-sales service users return visit/active contact
- regular tracking
- 5.Daily maintenance

## Strong Company With Over 20 Years of Experience

#### **1.Subsidiary Company**

Hebei Dexu Pipe Machinery Making CO,. LTD

#### 2.Staff Member

With currently over 200 employees including over 30 R&D crew members with minimum of college degree and 25% of them with graduate degree and higher.

#### **3.Sales Achievement**

Over 100 million RMB(15.6 mil USD) of sales achievement in 2020 from both domestic and overseas' market.

### 4. Manufacturing Shop

Our factory covers the land of over 35000 in', consisting of a machining factory, a assembling factory, a heat treatment factory, and a moulding factory. All the factory follows 6S standards and are equipped with modernized machines.











# PRODUCT **TECHNIQUE**

Technology is the key in maintaining a high efficient and high quality product while minimizing the production cost. With the development of technology, we have entered an era of automation and computerization. Our research team strives for the realization of higher automation of pipe production for stronger, smaller, or bigger pipes.

# **3.**Electric controlled with **high automation level**. 4. Higher precision and faster roller change speed.

## **ZTF Forming Process**

ZTF is a forming technique developed by ZTZG in 2005. It allows the shared-usage of rollers during break-down section when forming pipe, saving significant mould and labor

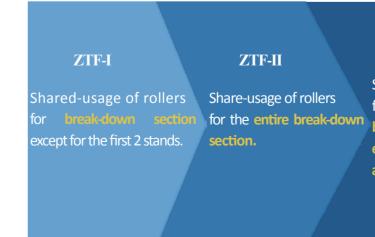
cost while greatly improving production efficiency. It earns the reward of "Technology Innovation Award' by 'China Cold Forming Steel Association' in 2010. After absorbing advanced pipe making technology from both abroad and domestic, our innovative designed production line and each single unit of the production line are not only economical but also practical.



## **ZTF CATEGORIZATION**

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Throughout the years, ZTZG has developed 4 generation for ZTF technique







**1.Save 60% roller cost** per specification of desired product. **2.Eliminate production down time** for break-down forming section roller replacement(typically 1-2 days per roller replacement).

#### **ZTF-III**

Share-usage of rollers for the **entire** break-down section with electric-motor adjustment.

#### **ZTF-IV**

Share-usage of rollers for the entire forming section with computer adjustment.



## **Multi-functional Tube Production Line**

Multi-functional production line combines the latest share-usage roller techniques(ZTF,DSS) in producing round pipe and square tube. It can produce round pipe, square and rectangular pipe, and some of broach cold rolled section steel all with only one set of mill.



- 1. Can produce straight welded round, square, rectangular, and unwelded abroach steel(C,Z,U,etc) within 1 set of production line.
- 2. Save significant roller cost when producing multiple sizes of tube.
- **3.** Allows share-use rollers in certain section, reduce labor intensity and **production efficiency**.
- 4. Adopts advanced guick-change system.

## **Quick-change System**

1.Requires no dismount of flange plate screw.

**2.**Typical roller change period can reduced by 4/5 from standard changing methods.

- **3.**Perfectly deal with water back-flow issue.
- 4. Automatically clear the scale cinder and dust while performing.

## Quick-change Table



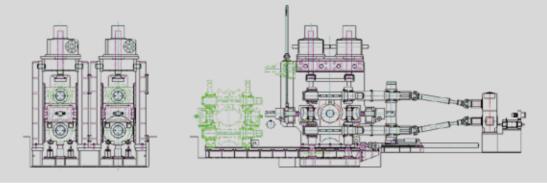
Allows the pre-assemble of rollers onto the stands on the quick-change table or quick-change shaft, when producing different size of rollers, load the quick-change system table directly onto the production and switch off the existing line. This system allows the unhalted production process, saving significant time during production.

## **Auto Stands Adjustment System**

When a production line has less than three specifications, this new auto-quick change system is recommended. There is no need to replace the mold, just pre-place the corresponding mold on the horizontal roll and vertical roll, and the automatic motor adjusts the roll position without the need of dismantling and roller switching.

## Horizontal Stand Roller Quick-shaft Change System

When changing rollers, pull out the side of the entire shafting unit, lift the shafting unit with the first roller specification from the transport trolley with the crown and put it aside, lift the shafting unit installed with the second roller specification, place it on the transport trolley, and then push the shafting back to the frame. It reduces roller replacement time for the entire mill from  $\sim 6$  hours to  $\leq 2$  hours.



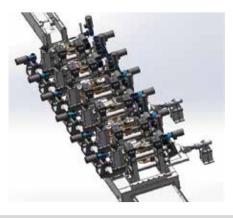
## Hydraulic Shaft Quick-Change System

Hydraulic transmission shaft removal device: Transmission shaft is designed as quick-dissemble type which requires no dismount of flange plate screw. The dissemble of shaft utilize hydraulic system for easy operation. Roller change period with quick-change system: Appr. 8 hours (typically 1.5-2 days needed without quick-change system)

#### If equipped with additional set of shaft, the appr. roller change period is < 2 hours

Quick Changing Shaft: When the steel pipe specification needs to be changed, preload the new specification and the quick-change shaft installed with the new roller can be put into production, so as to achieve the effect of quickly changing the steel pipe specification.











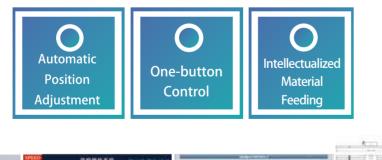






## **Direct Square to Square Pipe Mill**

DSS technique directly reel the strip steel into desired sized tube with several distinct advantages. It adapts the multi-point bending method, which avoids the axial force and side abrasion, reduces the forming step, and ensures high quality. Compare to Round-to-Square(RS) forming technique, DSS creates better outer edge and smaller inner are for the cross section of the tube, and the brim is flatter with more regular outlook. With our new DSS-3 technique, only one set of rollers is needed for the entire mill with no need for any roller or spacer replacement, which achieves full-automatic adjustment for roller positions, significantly increasing production efficiency and reducing labor cost and risk of hazard.







- **1.Save 95% roller cost** for square&rectangular sizes.
- **2.** Occupies smaller floor space compare to RS technique.
- **3.** Saves raw material consumption since the width of steel strip required is
- 2.4%-3% narrower than RS.
- **4. High Automation level**, require minimum to none manual adjustment.







## **XZTF Round-to-Square Pipe Mill**

## **Technique Overview:**

With the increasing need in stronger structure and better quality square pipe, many more countries and regions are starting to favor the round-to-square cold formed square product due to their better inner R angle and shape. However, the convenience and automation level of round-to-square forming compare to direct square forming is still lacking in some degree due to the forced change of rollers in sizing section when producing different square products.

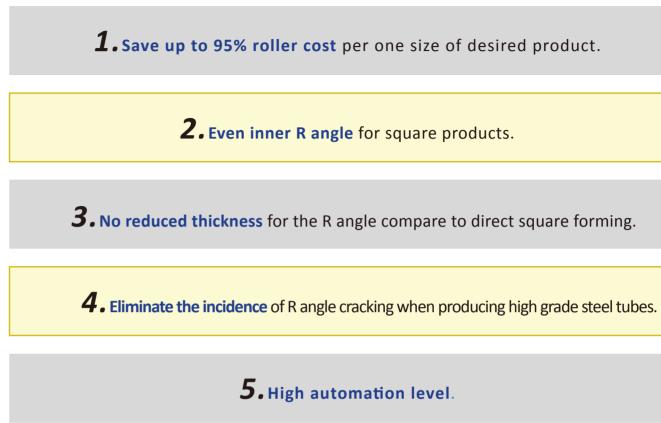


## Details of XZTF Round-to-Square Forming Technique:

This most advanced patented technique developed by ZTZG utilizes round-to-square technique while allowing customer to only use one set of rollers to produce all square pipe range within the set range, and share-use break-down section rollers when producing round pipe, saving significant roller cost and increase productivity. The adjusting time when producing a different size of product should  $\leq 2$  hours.

No manual switching rollers, higher efficiency			
	Roller Shareness	Labor Cost Saved	Worker Saved
Round	60%	80%	30%
Square&Rectangular	100%	100%	50%







## \*Advantages\*

Shijiazhuang Zhongtai Pipe Technology Development Co., I



Model List

ERW MODEL LIST				
Model	Round pipe mm	Square pipe mm	Thickness mm	Working spead m/min
ERW20	Φ8-Φ20	6x6-15x15	0.3-1.5	120
ERW32	Φ10-Φ32	10x10-25x25	0.5-2.0	120
ERW50	Φ20-Φ50	15x15-40x40	0.8-3.0	120
ERW76	Ф32-Ф76	25x25-60x60	1.2-4.0	120
ERW89	Ф42-Ф89	35x35-70x70	1.5-4.5	110
ERW114	Ф48-Ф114	40x40-90x90	1.5-4.5	65
ERW140	Φ60-Φ140	50x50-110x110	2.0-5.0	60
ERW165	Φ76-Φ165	60x60-130x130	2.0-6.0	50
ERW219	Ф89-Ф219	70x70-170x170	2.0-8.0	50
ERW273	Φ114-Φ273	90x90-210x210	3.0-10.0	45
ERW325	Ф140-Ф325	110x110-250x250	4.0-12.7	40
ERW377	Ф165-Ф377	130x130-280x280	4.0-14.0	35
ERW406	Ф219-Ф406	170x170-330x330	6.0-16.0	30
ERW508	Ф273-Ф508	210x210-400x400	6.0-18.0	25
ERW660	Ф325-Ф660	250x250-500x500	6.0-20.0	20
ERW720	Ф355-Ф720	300x300-600x600	6.0-22.0	20

Stainless Steel Pipe Mill Model List				
Model	Round pipe mm	Square pipe mm	Thickness mm	Working spead m/min
SS25	Φ6-Φ25	5x5-20x20	0.2-0.8	10
SS32	Φ6-Φ32	5x5-25x25	0.2-1.0	10
SS51	Φ9-Φ51	7x7-40x40	0.2-1.5	10
SS64	Ф12-Ф64	10x10-50x50	0.3-2.0	10
SS76	Φ25-Φ76	20x20-60x60	0.3-2.0	10
SS114	Ф38-Ф114	30x30-90x90	0.4-2.5	10
SS168	Φ76-Φ168	60x60-130x130	1.0-3.5	10
SS219	Ф114-Ф219	90x90-170x170	1.0-4.0	10
SS325	Ф219-Ф325	170x170-250x250	2.0-8.0	3
SS426	Ф219-Ф426	170x170-330x330	3.0-10.0	3
SS508	Φ273-Φ508	210x210-400x400	4.0-12.0	3
SS862	Ф508-Ф862	400x400-600x600	6.0-16.0	2

#### Service Advantage

One Hour Fast Response One-To-One Exclusive Service One Year Warranty & Life-Long **Technical Service** 



STEP 03

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Technology Advantage 29Invention Patents

**Executive Member & Technical** Support of Industry Association



Our advantage

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#### Product Advantage

Sales Network All Over The World

Strict Quality Inspection Standards With CE, BV, ISO 9001 Qualification



#### R&D Advantage Over One Hundred R & D Team More Than 10 Senior Engineers More Than 30 Intermediate Engineers



# OUR SALES V



ZTZG has established long-term and stable cooperative relations with many large enterprises at home and abroad, including: Kunming Steel Holding Co., LTD., Russia Tempo-NTZ Company, India D.P. Jindal Group, Cambodia ISI Steel Company and other well-known domestic and foreign enterprises. Our company's turnover in 2021 reached \$60 million, and our products are exported to Southeast Asia, Europe, South America, Japan, Turkey and other countries and regions. ZTZG support customization according to international standards in each region, and provide excellent equipment for many large enterprises at home and abroad, and our products are all over the world!

Our export percentage is comprised of a number of major markets in which we have been leading since our establishment.

The export percentage can be broken down as:



Country: Iraq Company Name: Nojoom Alsuha Time: 2010 Product Name: 0254 ZTF-2 API Pipe Production Line (Cooperated with the U.S government)

Country: Columbia Company Name: Acerias de Colombia ACESCO S.A.S Time: 2012 Product Name: 300X300X12 Direct Square Forming **Tube Production Line** 

**Country:** Turkey Company Name: BASATLI BORU PROFIL SANAYI VE **TICARET A.S** Time: 2015 Product Name: Ø273 Multi-functional Pipe Production Line

Country: Russia Company Name: Tempo-NTZ Time: 2018 Product Name:  $\Phi$ 720x22 API Pipe Production Line (Largest straight welded API production line exported by China)

Country: Japan **Company Name: Confidential** Time: 2021 Product Name: ERW60X5 High Precision Vehicle Pipe **Production Line** 



















