www.zrctube.com

# 湖州中锐洁净科技有限公司

HUZHOU ZHONGRUI CLEANING TECHNOLOGY CO.,LTD



No 99 Zhenxing Road, Shuanglin Township, Huzhou, Zhejiang, China





## Size Range

O.D: 3.175mm ~ 60.5mm
Thickness: 0.71mm~ 3.18mm
Length: 2000mm ~ 9000mm

# **Capacity**

Tube Capacity: 7 million Meter /yearSales Volume: USD 18.9 Million (2022)

# **About ZhongRui**

Huzhou Zhongrui is professional manufacturer specialized in bright annealing stainless steel tube. The size of tube is from OD 3.175mm-60.5mm with bright annealing or electropolishing finished. Tubes have been widely used in various industries such as automobile, food and beverage and other hydraulic systems. There are more than 100,000 meters of tubes available from our stock.

# **History**

- · 2013 Established Seamless Tube factory
- 2017 Established Zhongrui Brand
- 2020 Capacity mor than 4 million meters
- 2022 Second Plant

#### **Product Items**

- Stainless Seamless EP (Electropolished) Tube
- Stainless Seamless High-Cleaning BA(Bright annealed) tube
- Ultra High Pressure Tube(HR31603)
- Stainless Seamless Instrumentation BA Tube





# **Facility**

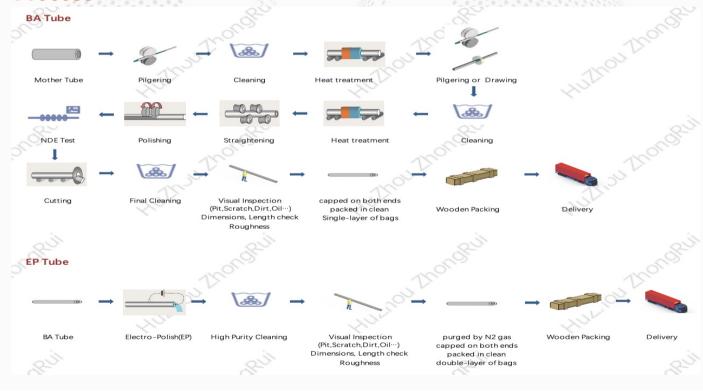
No	Machine	Unit
1	Drawing Machine(oil)	9
2	Pilger Machine	20
3	BA Heat Treatment Furnace	4
4	Straightening Machine	9
5	Polishing Machine	8
6	Cutting Machine	7
7	ECT	3
8	UT	2
9	Cleaning Tank	7
10	Full-automatic electrolytic polishing line	5+14







### **Process**





# **Description**

ZhongRui specialist in the manufacture of clean BA tube and supply both in domestic and abroad for the use of High purity gas and liquid supply line, automobile parts, Cylinder tube, Instrumentation , bioprocessing equipment, etc.

#### **BA Tube Size**

No.	Size	9
NO.	O.D(mm)	Thk(mm)
1/8"	3.175	0.71
	6.35	0.89
1/4"	6.35	1.24
	6.35	1.65
	9.53	0.89
	9.53	1.24
3/8"	9.53	1.65
	9.53	2.11
	9.53	3.18
	12.70	0.89
1/2"	12.70	1.24
1/2	12.70	1.65
	12.70	2.11
9/16"	14.30	3.18
5/8"	15.88	1.24
5/8	15.88	1.65
	19.05	1.24
2/4"	19.05	1.65
3/4"	19.05	2.11
	19.05	3.96
	25.40	1.24
1"	25.40	1.65
	25.40	2.11
1-1/4"	31.75	1.65
1-1/2"	38.10	1.65
2"	50.80	1.65
10A	17.30	1.20
15A	21.70	1.65
20A	27.20	1.65
25A	34.00	1.65
32A	42.70	1.65
40A	48.60	1.65
50A	60.50	1.65

	Size	
No.	O.D(mm)	Thk(mm)
1	6.00	1.00
2	8.00	1.00
3	8.00	1.50
4	10.00	1.00
5	10.00	1.50
6	10.00	2.00
7	12.00	1.00
8	12.00	1.50
9	12.00	2.00
10	12.70	1.00
11	14.00	1.00
12	14.00	1.50
13	14.00	2.00
14	15.00	1.00
15	15.00	1.50
16	15.00	2.00
17	16.00	1.00
18	16.00	1.50
19	16.00	2.00
20	18.00	1.00
21	18.00	1.50
22	18.00	2.00
23	19.00	1.50
24	19.00	2.00
25	20.00	1.50
26	20.00	2.00
27	22.00	1.50
28	22.00	2.00
29	25.00	2.00
30	28.00	1.50

### **Steel grade**

316/316L 304/304L

TP316L (Sulphur: 0.005% - 0.017%)

Nickel Alloy



# **Specifications**

JIS, ASTM A269 EN10216

# Surface finish(Ra)

I.D surface: 0.35µm & 0.6µm

#### **Size Tolerance:**

tube: 1/8 ~ 2"pipe: 2.5 ~ 20

# Packing:

Each single tube capped on both ends, packed in clean single-layer of bags and final into wooden case.

#### **Feature**

- Strict tolerance in the diameter and wall thickness
- Good corrosion resistance by the fully bright annealing
- A good Weldability
- Excellent internal roughness due to the advantage process technology and washing



# **Description**

ZhongRui specialist in the manufacture of EP tube and supply both in domestic and abroad for the use of semiconductor manufacturing equipment, display, food · pharmaceutical · bio production equipment ,etc.

#### **EP Tube Size**

	Si	ze
No.	O.D(mm)	Thk(mm)
1/4"	6.35	0.89
3/8"	9.53	0.89
1/2"	12.70	1.24
3/4"	19.05	1.65
3/4"	19.05	2.11
1"	25.40	1.65
1"	25.40	2.11
1-1/4"	31.75	1.65
1-1/2"	38.10	1.65
2"	50.80	1.65
10A	17.30	1.20
15A	21.70	1.65
20A	27.20	1.65
25A	34.00	1.65
32A	42.70	1.65
40A	48.60	1.65



# Packing:

Each single tube has been purged by N2 gas, capped on both ends, Packed in clean double-layer of bags and final into wooden case.

## Steel grade

TP316/316L SS316V+V



# **Specifications**

JIS ASTM A269

# Surface finish(Ra)

I.D surface: 0.25µm O.D surface: 0.50µm

#### **Size Tolerance:**

tube: 1/4 ~ 2"pipe: 2.5 ~ 20

#### Clean Room Standard:

ISO14644-1 Class 5

#### **Feature**

- Strict tolerance in the diameter and wall thickness
- Good corrosion resistance by the fully bright annealing
- A good Weldability
- Excellent internal roughness due to the advantage process technology and washing



# HR31603 for High Pressure Hydrogen Pipe Line

# **Description**

Hydrogen pipeline materials should be HR31603 or other materials that have been tested to confirm good hydrogen compatibility. When selecting austenitic stainless steel material, its nickel content should be greater than 12% and the Nickel equivalent should not be less than 28.5%.

#### Size & Press

Model	Press (psi)	Size	Size	(mm)	W.T (mm)			Working procedure (hal		re (bar)	
			O.D	I.D			-17.8~37.8°C 0~100°F	93°C 200°F	204°C 400°F	316°C 600°F	343°C 650°F
11-ZR02	11000psi	1/8	3.18	1.57	0.81	1.94	803.23	803.23	761.86	517.10	379.21
11-ZR04	11500psi	1/4	6.35	3.18	1.57	7.74	803.23	775.65	775.65	496.41	361.97
75-ZR06	7500psi	3/8	9.53	6.35	1.57	31.61	517.10	730.83	730.83	468.84	341.29
55-ZR08	5500psi	1/2	12.7	9.53	1.57	70.97	379.21	679.12	679.12	434.36	317.15
					-198~37.8°C -325~100°F	93°C 200°F	204°C 400°F	316°C 600°F	427°C 800°F		
20-ZR04		1/4	6.35	2.77	1.78	5.81	1378.93	1378.93	1327.22	1244.48	1158.30
20-ZR06		3/8	9.53	5.16	2.18	20.65	1378.93	1378.93	1327.22	1244.48	1158.30
20-ZR09	20000psi	9/16	14.29	7.92	3.18	49.03	1378.93	1378.93	1327.22	1244.48	1158.30
20-ZR10		3/4	19.05	11.13	3.96	97.42	1378.93	1378.93	1327.22	1244.48	1158.30
20-ZR12		1	25.4	14.27	5.56	160.0	1378.93	1378.93	1327.22	1244.48	1158.30
30-ZR04	30000psi	1/8	3.18	1.02	1.08						
30-ZR06	30000p3i	1"	25.4	11.1	7.15						
60-ZR04		1/4	6.35	2.11	2.11	3.23	4136.79	4136.79	3981.66	3740.35	3495.59
60-ZR06	60000psi	3/8	9.53	3.18	3.18	7.74	4136.79	4136.79	3981.66	3740.35	3495.59
60-ZR09		9/16	14.29	4.78	4.75	18.06	4136.79	4136.79	3981.66	3740.35	3495.59
100-ZR04	100000psi	1/4	6.35	1.59	2.38	3.23	6894.64	6864.64	6633.24	6230.55	5820.46
100-ZR06	100000psi	3/8	9.53	1.90	3.81	7.74	6894.64	6864.64	6633.24	6230.55	5820.46
150-ZR04	150000psi	3/8	9.53	1.56	3.99	7.74	10341.97	10341.97	9955.87	9400.85	8738.97

# Steel grade





# **Specifications**

QB/ZRJJ 001-2021

#### **Size Tolerance:**

- According to the GB/T 17395
- According to the customer's request

#### Packing:

Each single tube capped on both ends, packed in Clean single-layer of bags and final into wooden case.

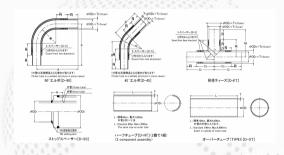
#### **Feature**

- Good resistant to hydrogen embrittlement
- Strict tolerance in the diameter and wall thickness
- Being used for High-Pressure applications
- Strict tolerance in the diameter and wall thickness



# UHP Fitting

We have always been aiming at pursuing excellence in product quality and reliability, taking breaking the monopoly of foreign high-purity pipe fittings in the semiconductor industry as our mission and working hard for the development of the domestic semiconductor industry.







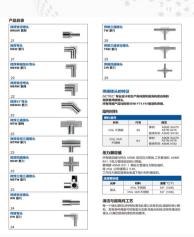
#### **Body Type**







短額2位甲級头		外螺纹变径接头 MRU 斯朝		内螺纹焊接三通 FFTU 斯列	en
8G (A)		MRU 3099		FFTU \$690	-
7	-	11		14	100
长智对焊接头		外間投資販額先		内螺纹螺母	
LG MIN		80 <b>334</b>		FN 839	efor
7		11		14	4,00
CONTRACTOR OF		+810111191616	l.	948089	
SWG IEN		BUW IKN		MN BER	
			-		-
8		11		14	
外焊接头 MWG 斯利		外螺纹电头 MF 斯斯		外線投資銀母 SMN 新列	_
8		12	UIU	15	_
中在智慧头		外螺纹弯头		内螺纹油帽	
GAT BER		EU JESU		FCAP \$50	£ 200
A		12	(11)	15	- 100
SHEDDES.		12 91000000000		9-881238-80	
MC BIRS		TU NEW	11	MP 8(3)	- mar
					b
9	- 0	12	uu	15	
外螺纹穿板模块 MRC 斯列		外螺纹四通 CU 斯列	(0)	卡雷智2付焊接头 - 7 LHFG 斯列	THE IN
		00 801		Die o any	
9		12		16	
外螺纹接头		内外螺纹接头		卡森智外螺纹对焊	0头-海流量
MCO BEN		FMC BSI	mP.	HEMT \$139	_
9 PHEIZIES		13 PHEISTER		16 外間2度以 - 高級	
FC BIN		FFC BBI	-	HEU SIZE	
10		13		16	u
外螺纹卡套接头 MGU WM		内螺纹卡数接头 FGC 斯利		外螺纹三道 - 高度I	
		. 00 400	MP		
10		13	-	17	(II)
外標位于實際措施	4	PHENOTON		内膜投稿母 - 政制	
MBGU BOY		FFU BISM	me on	HEN 3539	100
					-
10		13		17	
外域改直通線头 MU 那列		内螺纹微焊电头 FFEU 斯列	<b>E</b> -3	外線投銀母 - 高高I HMN 展列	100
					_
11		14	100	17	-



作書直通機头 U 解例	TO	中国内理较相关 NPT FC 原列	T	中容智宗祖师母头 TSWE 展列	1
中富金径線头 RU 斯列	To	◆客内機能療法 はの、第5P 報用機能 (RT) FC 駅何	T	<b>東京司兵</b> RE <b>B3</b> (	14
中間学校開头 80 駅列 9	THE	+ 数中域以早転換头 NPT BFC 服列 21	U	中国内域投资系 NPT PE NM 31	1
中国学校会设施从 BRU 斯列	TO	党研修从 R 第30	To.	中間三調輸送 UT 服制 32	
大会外様収接兵 NPT NC 影列 10	0	孔口接头 PC 斯列 24		→放出通安括線从 RUT 原列 33	
作館外間投稿長 SOVERP 推形閣政 (RT) MC 期別 12		孔口安铝胺共 RPC 斯列		<b>卡金外線校三週</b> 支管、NPT NBT 第到 34	John
作館外線段接头 SO/ISSP 平形線技 (RS) MC 斯列 14	To.	10 NEM C NEM 25	D	<b>小窓外間収三週</b> 直通、NPT MRT 第30 35	
<del>作館外館収録失</del> SO/ISSP 平治療以 (RP) MC 新列 15	J.	<b>常務</b> P 新列 25	0	<b>中窓内標校三週</b> 支性、NPT FBT 8例 36	To the
中部外線改接头 SAE,ANS 直接改 (ST) MC 斯列 16	I.	中在市場 UE 斯列 26	2	<b>中窓内間投三通</b> 直通、NPT FRT 影列 37	
中数分類交換與 O型原密計 SAE/MS 直導 MC 斯列 17	TC.	· 数外螺纹电头 NPT ME 影列 27		→整四級線头 uc 服制 38	
作整外線に存板接头 NPT BMC 原列 17	TIL	・・・		卡金智外環境特殊法 NPT MA 原列 39	
作數公称號对焊接头 MPWC 原列	1	中套公标题对焊电头 MPWE 系列 30		中倉田外様収料検提头 ISO/RSP 性形様以 (RT) MA 裏列 40	



#### **Automotive/Instrumentation**

\*Material: TP304/304L , TP316/316L

\*Tube: BA \*Application:

Gasoline, CNG, hydrogen, electronic cars, High purity gas and liquid supply line, Automobile parts, Cylinder tube, BPE





#### Semiconductor

\*Material: TP316/L,1.4404,1.4435

\*Tube: BA & EP \*Application:

High purity gas transfer line, semiconductor Manufacturing equipment,

Display, Food · pharmaceutical · bio production equipment





#### Oil & Gas / Petrochemical Plant

\*Material:TP304/304L, TP316/L,1.4404,1.4435

\*Tube: BA
\*Application:
Instrumentation. Pipir

Instrumentation, Piping line, Heat exchanger, Nuclear Plant





# **Ultra High Pressure Tube**

\*Material: HR31603

\*Tube: BA \*Application:

Hydrogen gas line, Hydrogen station, hydrogen storage device







### **Test Item and Standard**

Tensile Strength	Yield Strength	Elongation	Hardness(HRB)	Flaring	Flattening
ASTM A370	ASTM A370	ASTM A370	ASTM A370	ASTM A1016	ASTM A1016

# **NDT and Dimensional Inspection**

Size	Appearance	Eddy Current	Ultrasonic Test	PMI	Roughness
ASTM A1016/1016M		E426,E309	E213	A751	ISO 3274



# Certificate



ISO9001:2015







ISO45001:2018

PED

Hydrogen compatibility Certificate(TUV)



### Tag

Case No: 1

Material: TP316/316L Size : 9.53\*0.89\*6000mm

Q'ty: 3000pcs

To :destination of port

Made in china

# **Marking**



\* Tag and Marking Can be modified according to customer requirements

# **Packing**



**BA Tube Packing** 

**EP Tube Packing** 

Wooden Box

# Stocks for quick delivery





\* Stock tube size: O.D 3.18mm-60.5mm ; Material: 304/L, 316/L

### **Our abroad Market**



South Korea
Taiwan,
Middle east
Singapore
Thailand
India
UK
USA
Italy
Other Asian Country



# **Futural Scope**

Zhongrui Tube exists for the industrial development of mankind and the happiness of its members. As a stainless steel precision tube manufacturer, we have long and friendly business with various industries such as semiconductors, automobiles, energy, medical since 2013.

Nowadays, Zhongrui Tube starts expanding the global market with the best quality and most professional service. Zhongrui devotes to become an essential company for the high-techization of industry so that the better life of mankind and the development of civilization.

As a responsible company, Zhongrui keeps growing and is happy with our employees, shareholders, suppliers, and other members. Warmly welcome to join us in future.

