



山东熙通液压科技有限公司
CITON HYDRAULIC TECH CO., LTD.

山东熙达液压科技有限公司
SHANDONGXIDAHYDRAULICTECHNOLOGYCO.,LTD

地址 (ADD): 山东省聊城市开发区燕山路经开区驾考中心对过
#12 Yan Shan Road Liaocheng City, Shandong Province, PRC
销售电话: +86-0635-8368108 +86-137-3448-3444

更多详细资料请点击网站
For more products please visit our website:
www.citontech.com



山东熙通液压科技有限公司
Shandong Citon Hydraulic Tech Co., Ltd

山东熙通液压科技有限公司
Shandong Citon Hydraulic Tech Co., Ltd



目录

CATALOGUE

企业简介

Company Profile

01

我们的服务

Our Services

02

产品介绍

Product Introduction

03

生产设备

Production Equipment

13

检测设备

Testing Equipment

15

工艺流程

Testing Equipment

20

产品应用

Testing Equipment

21

企业文化

CORPORATE CULTURE

企业精神 Corporate Spirit

创新、务实、诚信、高效

Innovation, pragmatism, integrity, and efficiency

企业作风 Enterprise Style

严、细、实、快

Strict, meticulous, practical, and fast

工作方针 Working Policy

加强内部管理,夯实基础,全面提高职工整体素质,使企业管理水平再上新的台阶。

Strengthen internal management, consolidate the foundation, comprehensively improve the overall quality of employees, and elevate the level of enterprise management to a new level

公司宗旨 Company Purpose

以服务求市场,以质量求生存,以创新求进步,以技术求发展。

Seeking market through service, survival through quality, progress through innovation, and development through technology.



公司简介 COMPANY PROFILE

山东熙通液压科技有限公司是一家专业从事珩磨管、气缸管、油缸管、厚壁珩磨管、不锈钢珩磨精密珩磨管生产的现代企业。

目前公司生产品种规格为:内径直径30mm-300mm,壁厚为2mm-40mm。技术条件为:内孔精度H5-H10,内孔粗糙度Ra≤0.63um,直线度<0.3mm/m。钢号是20#-45#、16Mn、27SiMn及部分低合金钢,标准GB8713-88。规格为40-300*2-40MM,长度为2-12M的各种类型油缸管,年产销售能力3万吨。

我司设备先进,生产工艺优化,检测手段完善。产品主要用途:液压、汽动缸筒、液压管线、旋压、纺织以及印刷机械用管、汽车减震器用管、轴套管、活塞杆以及精密机械用钢管。根据客户的要求还可提供:定尺管、珩磨管以及特殊热处理管等。质量全部达到国家标准,产品广泛应用于汽车、电力、石化、船舶、航天、轴承、气动元件、油缸、锅炉设备、医疗器械、健身器械、拖拉机、摩托车、钢筋连接套、油缸管、机械制造等行业。

公司有大量珩磨钢管、气缸管、油缸管、航模管、厚壁珩磨管、不锈油缸管、珩磨管、厚壁珩磨管、不锈钢珩磨管、精密珩磨管现货,将以优惠的价格,批零兼营的方式,为您提供珩磨快捷优质的服务,欢迎新老客户前来洽谈、电议。

公司以先进的生产工艺、优良的产品质量、宽幅的产品组矩、优质的服务赢得中外钢管行业的好评。

Citon Hydraulic Tech Co., Ltd. is a modern enterprise specializing in the production of honed tubes, hydraulic cylinder tubes, chrome-plated rods, and high-precision cold-drawn tubes, with an annual production capacity of 30,000 tons.

Our company is equipped with advanced machinery, optimized production processes, and comprehensive testing methods. The main applications of our products include hydraulic cylinders, pneumatic cylinders, hydraulic pipelines, spinning machinery, textile and printing machinery, automotive shock absorber pipes, shaft sleeves, piston rods, and precision machinery steel pipes.

We also offer fixed-length, ground, and specially heat-treated tubes based on customer requirements. All products adhere to national quality standards and are widely used in industries such as automotive, power, petrochemical, shipbuilding, aerospace, bearings, pneumatic components, oil cylinders, boiler equipment, medical devices, fitness equipment, tractors, motorcycles, steel bar connectors, oil cylinder pipes, and mechanical manufacturing.

Our extensive inventory includes ground pipes, steel pipes, cylinder pipes, oil cylinder pipes, aviation model pipes, thick-wall ground pipes, stainless steel oil cylinder pipes, and precision ground pipes. We are committed to providing fast and high-quality services at competitive prices through both wholesale and retail operations.

We welcome new and existing customers to discuss their needs with us. Over the years, our advanced production technology, exceptional product quality, diverse product range, and superior service have earned us recognition and praise in the domestic and international steel pipe industries.

我们的服务 OUR SERVICES

先进设备 保证品质 ADVANCED EQUIPMENT GUARANTEES QUALITY



山东熙通液压科技有限公司长年专业从事生产与经营销售精密冷拔钢管、精密珩磨管、刮削滚光管。公司拥有高精度液压冷拔机组、多矫直机、切销滚压数控镗床及数十台大型珩磨机组、试验机等一系列完善的运营模式。

We use advanced equipment to ensure the quality of our cylinder tubes. This helps us make them strong, precise, and reliable to meet your needs. The company has a complete set of operation modes, including high-precision hydraulic cold drawing units, multi roll straightening machines, cutting and rolling CNC boring machines, as well as dozens of large honing units and testing machines.

多元化定制加工省时省力 DIVERSIFIED CUSTOMIZED PROCESSING SAVES TIME AND EFFORT



公司的产品在客户当中享有较高的地位,公司与多家中大型机械公司建立了长期稳定的合作关系。产品品种齐全、价格合理。公司实力雄厚,重信用、守合同、保证产品质量,以多品种经营特色和薄利多销的原则,赢得了广大客户的信任。

We are a factory with advanced equipment, able to provide a wide range of custom services. We focus on delivering high-quality, tailored solutions to meet different needs.

售前售后积极响应客户需求 PROACTIVELY RESPONDING TO CUSTOMER NEEDS BEFORE AND AFTER SALES



公司产品均符合国家标准(GB),公司的质量控制过程包括设计审查、原材料检验、生产过程中检验、初始生产审核和审查、出厂前检验。公司以良好的信誉、优质的产品、工厂产品服务到全国30多个省、市、自治区、直辖市,产品深得用户依赖。

We offer products meet EN10305-1, DIN2391, ASTM A519 standards, and our quality control process includes design reviews, raw material inspections, in-process checks, initial production audits, and pre-delivery inspections. The company has built a strong reputation for high-quality products and reliable service. Our products are delivered to over 30 provinces, municipalities, autonomous regions, and directly governed cities in China, earning trust and dependability from our users.

践行信义 合作共赢 PRACTICING INTEGRITY, COOPERATION, AND WIN WIN COOPERATION



我们的目标:不断开发新产品,把控质量技术关。
我们的宗旨:客户为本,技术创新,严控质量,诚信服务。
我们的信念:客户的满意是我们的追求。
欢迎广大新老客户莅临指导,相互协作,共同发展。

Our goal is to continuously develop new products and control quality and technology.
Our mission: customer-oriented, technological innovation, strict quality control, and honest service
Our belief: Customer satisfaction is our pursuit.
Welcome new and old customers to visit and guide us, cooperate with each other, and develop together.

产品介绍

PRODUCT INTRODUCTION

精密冷拔钢管 Precision Cold Drawn Steel Pipe

产品说明 Product Description

精密冷拔钢管是一种通过冷加工加工方法制成的无缝钢管。它是将钢坯在室温下经过多道次的冷加工,通过拉伸、轧制等加工工艺来制成。这种加工方法可以使得管材的壁厚、内外径等尺寸精度更高,表面光滑度更好,同时也能提高管材的强度和耐磨性。

精密冷拔钢管具有优异的加工性能、表面质量和机械性能,广泛应用于机械制造、汽车制造、航空航天、石油化工等领域。相比于其他制造方法,冷拔钢管制造精度更高,同工艺复杂,但生产出的钢管质量更稳定、时还具有更好的抗拉强度和耐腐蚀性能。

Precision cold-drawn steel tubes have excellent machining properties, surface quality, and mechanical performance, making them widely used in industries such as machinery manufacturing, automotive production, aerospace, and petrochemicals. Compared to other manufacturing methods, cold-drawn steel tubes offer higher precision and more complex processes, but the resulting steel tubes have more stable quality, better tensile strength, and improved corrosion resistance.

Precision cold-drawn steel tubes are seamless tubes produced through cold processing. The process involves multiple stages of cold working at room temperature, using stretching, rolling, and other processing techniques. This method results in higher dimensional accuracy for wall thickness, inner and outer diameters, and improved surface smoothness, while also enhancing the strength and wear resistance of the tubes.

精密珩磨管 Precision Honed Tube

产品说明 Product Description

珩磨是一种机械加工工艺,通过对冷拔管内孔进行往复高速磨加工,使内孔达到所需公差尺寸及表面粗糙度要求。我们可根据客户要求珩磨加工,并能达到H7、H8、H9等公差范围以及Ra0.4的粗糙度和3~5丝的椭圆度范围内,长度最长可达12m。

Honing is a machining process that involves the reciprocating high-speed grinding of the inner bore of cold drawn tubes to achieve the desired tolerance, size, and surface roughness. We offer honing services according to customer requirements, meeting tolerance ranges such as H7, H8, H9, surface roughness of Ra 0.4, and ovality within 3-5 microns. The maximum length we can process is up to 12 meters.



精密镗滚管 Precision Boring Rolling Tube

产品说明 Product Description

采用刮削滚压加工,由于表面层留有表面残余压应力,有助于表面微小裂纹的封闭,阻碍侵蚀作用的扩展。从而提高表面抗腐蚀能力,并能延缓疲劳裂纹的产生或扩大,因而提高珩磨管疲劳强度。通过滚压成型,滚压表面形成一层冷作硬化层,减少了磨削副接触表面的弹性和塑性变形,从而提高了珩磨管内壁的耐磨性,滚压后,表面粗糙度值的减小,可提高配合性质。

Using scraping and rolling processing, due to the residual compressive stress left on the surface layer, it helps to close small cracks on the surface and hinders the propagation of erosion. Thereby improving the surface corrosion resistance and delaying the generation or expansion of fatigue cracks, thus enhancing the fatigue strength of the grinding tube. By rolling forming, a cold work hardening layer is formed on the rolling surface, reducing the elastic and plastic deformation of the contact surface of the grinding pair, thereby improving the wear resistance of the inner wall of the grinding tube. After rolling, the surface roughness value is reduced, which can improve the fitting properties.



精密活塞杆 Stainless Steel Honing Cylinder

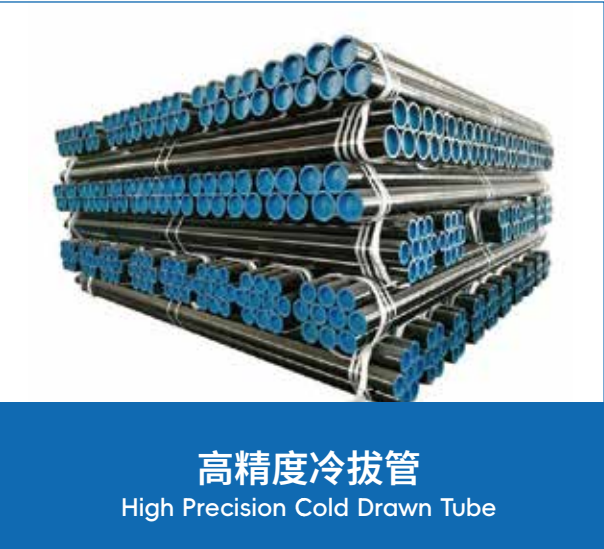
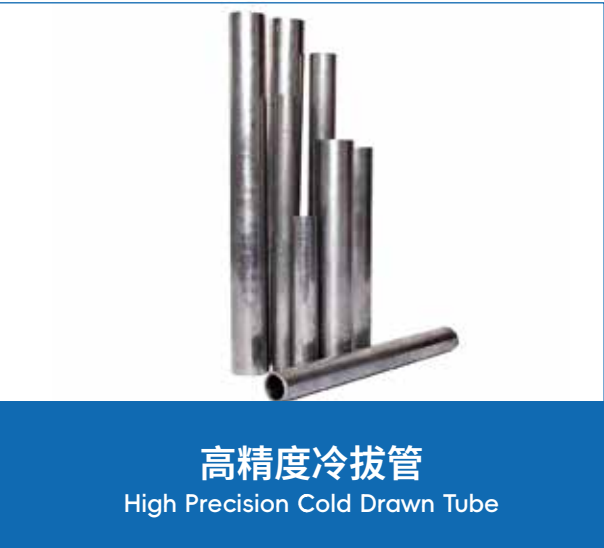
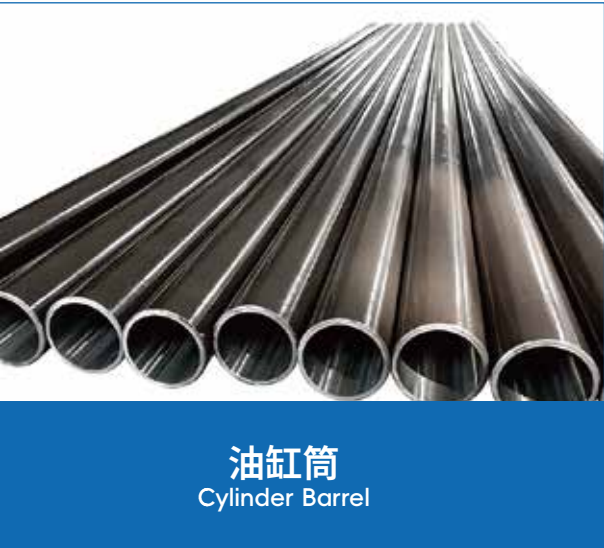
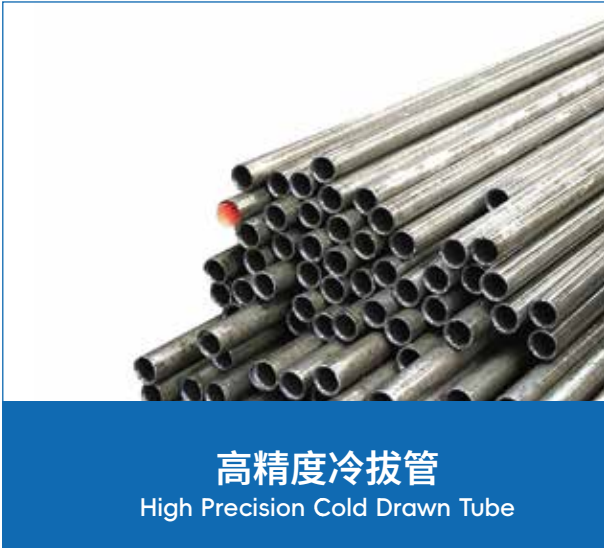
PRODUCT DESCRIPTION

精密活塞杆采用精密冷拔、精磨和高精度抛光的先进工艺制造,各项技术指标均符合并超过国家标准。可直接用于油缸、气缸、减震器、活塞杆,并广泛用于液压气动、纺织印染、印刷机械导轨、压铸机、注塑机导杆、顶杆及四柱油压机导柱:传真机、复印机、高速油印机、打印机等现代办公机械导轨等一些以精密细长轴为部件的行业和产品。

Precision piston rods are manufactured using advanced processes including precision cold drawing, fine grinding, and high-precision polishing. All technical specifications meet or exceed national standards. These rods can be directly used in hydraulic cylinders, pneumatic cylinders, shock absorbers, and pistons. They are widely used in industries and products that require precision, slender shafts, such as hydraulic and pneumatic systems, textile printing and dyeing, printing machinery guide rails, die-casting machines, injection molding machine guide rods, ejector rods, and four-column hydraulic press guide columns. They are also used in modern office equipment such as fax machines, copiers, high-speed duplicators, and printers.



产品图片 Product Photos



液压油缸和气缸用高精度冷拔管 High Precision Hydraulic Cold Drawing Cylinder
产品说明 Product Description >>>

产品规格 SIZE
缸筒内径 Cylindertube ID:φ40-400mm 壁厚 Thickness:>5mm

钢管材质 MATERIAL
E355, ST52, 20#, 45#, Q355B, Q355D Q355E, 25Mn, 27SiMn, E470, P460, P620,1026

产品标准 STANDARD
EN10305-1:2002, EN10305-2:2002
ASTM A519-2006, ASTM A513-2007,
GB/T3639-2009, GB/T8713, GB/T1591-2008, GB/T17396-2009

液压、气动缸筒规格尺寸、精度 HYDRAULIC AND PNEUMATIC CYLINDER TUBE STANDARD/SIZE/TOLERANCE

加工方式 Working Method	缸筒直径 TubelD (mm)	长度 Length (m)	直线度 Straightness (mm/m)	内径尺寸精度 Tolerance on ID	壁厚差 Tolerance on WT	内孔粗糙度 ID Roughness (μm)
冷拔 Cold Drawing	40-400	≤12m	0.2-0.5		±5%	≤1.6
冷轧 Cold Rolling	40-150	≤12m	0.2-0.5		±5%	≤0.8
冷拔-珩磨 Cold Drawing Honing	40-400	≤8m	0.2-0.3	H8-H9	±5%	≤0.4
冷拔-滚压 Cold Drawing Rolling	50-300	≤8m	0.2-0.3	H8-H9	±5%	≤0.2
深孔镗-珩磨 Deep Hole Boring Honing	250-400	≤8m	0.2-0.3	H8-H9	±5%	≤0.8
深孔镗-滚压 Deep Hole Boring Rolling	250-400	≤8m	0.2-0.3	H8-H9	±5%	≤0.4



力学性能
 MECHANICAL PROPERTY

交货状态 FinalSupply Condition 钢种 Steel Grade	冷硬 COLD FINISHED(HARD) (BK)		冷拔+去应力退火 COLD DRAWN AND STRESS-RELIEVED(BK+S)				
	抗拉强度 T.S6 bN/mm²	伸长率 Elongation δ 5%	抗拉强度 T.S6 bN/mm²	屈服强度 Y.S6bN/mm²	伸长率 Elongation δ 5%	硬度 Hardness HB	冲击功 Impact value (-20℃)J
20#	≥550	≥8	≥520	≥400	≥15	170	/
45#	≥680	≥5	≥630	≥520	≥12	190	/
Q355B	≥660	≥8	≥620	≥520	≥15	190	/
Q355D	≥660	≥8	≥620	≥520	≥15	190	≥27
Q355E	≥660	≥8	≥620	≥520	≥15	≥190	≥27
25Mn	≥640	≥5	≥620	≥510	≥15	190	/
27SiMn	≥780	≥8	≥700	≥580	≥10	220	/
E355	≥700	≥5	≥650	≥580	≥15	195	≥27
1026	≥640	≥8	≥620	≥510	≥15	≥190	/
E470	/	/	≥710	≥590	≥15	/	/
P460	/	/	≥710	≥590	≥15	≥190	≥27
P620	/	/	≥730	≥630	≥15	≥220	≥27

化学成分
 CHEMICAL COMPOSITION

钢种 SteelGrade	C	Si	Mn	P	S	Cr	Ni	Cu	V	Al
20#	0.17-0.23	0.17-0.37	0.35-0.65	≤0.035	≤0.035	≤0.25	≤0.30	≤0.25	/	/
45#	0.42-0.50	0.17-0.37	0.50-0.80	≤0.035	≤0.035	≤0.25	≤0.30	≤0.25	/	/
Q355B	≤0.20	≤0.50	≤1.70	≤0.035	≤0.035	≤0.30	≤0.50	≤0.30	/	/
Q355D	≤0.18	≤0.50	≤1.70	≤0.030	≤0.025	≤0.30	≤0.50	≤0.30	≤0.15	≥0.015
Q355E	0.12-0.18	0.2-0.5	1.2-1.7	≤0.025	≤0.025	≤0.30	≤0.50	≤0.20	0.04-0.15	≥0.02
25Mn	0.24-0.32	1.10-1.40	1.10-1.40	≤0.035	≤0.035	≤0.30	≤0.30	≤0.20	/	/
27SiMn	0.22-0.29	0.17-0.37	0.7-1.0	≤0.035	≤0.035	≤0.25	≤0.30	≤0.25	/	/
E355	≤0.22	≤0.55	≤1.60	≤0.025	≤0.025	/	/	/	/	≥0.02
1026	0.22-0.28	≤0.3	0.6-0.9	≤0.035	≤0.025	≤0.20	≤0.30	≤0.35	/	/
E470	0.16-0.22	0.10-0.50	1.30-1.70	≤0.030	≤0.035	/	/	/	0.08-0.15	/
P460	≤0.2	≤0.6	1.0-1.7	≤0.025	≤0.015	≤0.30	≤0.80	≤0.70	≤0.20	≥0.02
P620	≤0.2	≤0.6	1.0-1.7	≤0.025	≤0.015	≤0.30	≤0.80	≤0.30	≤0.20	≥0.02

内径公差尺寸
 INNER DIAMETER DIMENSION TOLERANCE

内径尺寸 ID(mm)	冷硬 COLD FINISHED(HARD)(BK)			
	H7	H8	H9	H10
30	+21 0	+33 0	+52 0	+52 0
>30-50	+25 0	+39 0	+62 0	+62 0
>50-80	+30 0	+46 0	+74 0	+74 0
>80-120	+35 0	+54 0	+87 0	+87 0
>120-180	+40 0	+63 0	+100 0	+100 0
>180-250	+46 0	+72 0	+115 0	+115 0
>250-315	+52 0	+81 0	+140 0	+140 0
>315-400	+57 0	+89 0	+170 0	+170 0

气动缸筒
 PNEUMATIC CYLINDER TUBE

气动缸筒 UnitWeight (kg/m)	内径 IDmm	外径 ODmm	壁厚 Thickness (mm)
11.71	90	100	5
12.95	100	110	5
16.03	125	135	5
21.6	140	152	6
19.11	150	160	5
20.34	160	170	5
24.56	160	172	8
32.28	180	194	7

气动缸筒 UnitWeight (kg/m)	内径 IDmm	外径 ODmm	壁厚 Thickness (mm)
33.00	200	213	6.5
41.03	200	216	8
49.08	200	219	9.5
50.90	250	266	8
74.16	250	273	11.5
76.45	300	320	10
81.38	320	340	10
101.10	400	420	10



液压缸筒 HYDRAULIC CYLINDER TUBE

液压缸筒 UnitWeight (kg/m)	内径 IDmm	外径 ODmm	壁厚 Thickness (mm)
6.78	50	60	5
9.06	50	63	6.5
10.63	50	65	7.5
14.80	50	70	10
7.52	56	66	5
8.01	60	70	5
10.66	60	73	6.5
17.26	60	80	10
11.14	63	76	6.5
14.99	63	80	8.5
18.00	63	83	10
8.63	65	75	5
13.41	65	80	7.5
9.25	70	80	5
12.26	70	83	6.5
15.39	70	86	8
19.73	70	90	10
15.26	75	90	7.5
20.96	75	95	10
13.87	80	93	6.5
16.18	80	95	7.5
22.19	80	100	10
24.68	80	102	11
32.45	80	108	14
14.67	85	98	6.5
17.11	85	100	7.5
23.43	85	105	10
14.20	90	102	6

液压缸筒 UnitWeight (kg/m)	内径 IDmm	外径 ODmm	壁厚 Thickness (mm)
18.03	90	105	7.5
21.97	90	108	9
24.66	90	110	10
30.18	90	114	12
19.88	90	115	7.5
24.19	100	118	9
28.61	100	121	10.5
37.79	100	127	13.5
24.84	100	127	8.5
29.59	110	130	10
34.46	110	133	11.5
46.24	110	140	15
24.27	110	131	8
30.83	115	135	10
35.87	115	138	11.5
39.30	115	140	12.5
23.58	115	135	7.5
32.06	120	140	10
35.54	120	142	11
42.64	120	146	13
24.51	125	140	7.5
35.09	125	146	10.5
38.71	125	148	11.5
42.38	125	150	12.5
46.11	125	152	13.5
53.70	125	156	15.5
59.53	125	159	17
38.25	130	152	11

液压缸筒 HYDRAULIC CYLINDER TUBE

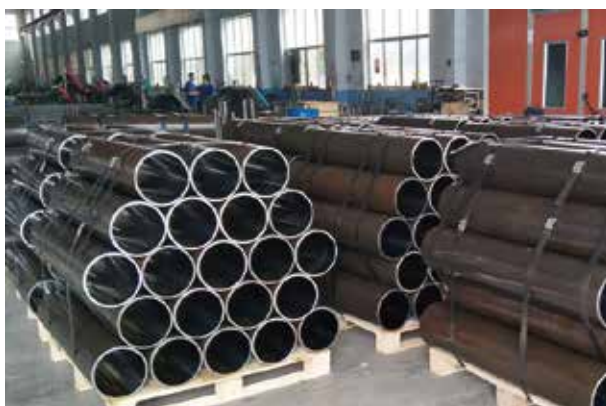
液压缸筒 UnitWeight (kg/m)	内径 IDmm	外径 ODmm	壁厚 Thickness (mm)
45.84	130	156	13
53.64	130	160	15
45.47	135	160	12.5
36.99	140	160	10
42.96	140	163	11.5
49.05	140	166	13
53.17	140	168	14
74.50	140	178	19
35.29	150	168	9
39.46	150	170	10
50.09	150	175	12.5
41.03	150	180	15
41.92	160	180	10
50.09	160	184	12
60.07	160	188	14
64.73	160	190	15
74.20	160	194	17
75.88	170	203	16.5
43.22	175	194	9.5

液压缸筒 UnitWeight (kg/m)	内径 IDmm	外径 ODmm	壁厚 Thickness (mm)
46.85	180	200	10
54.31	180	203	11.5
72.13	180	210	15
82.59	180	214	17
95.93	180	219	19.5
65.50	200	225	12.5
79.53	200	230	15
93.86	200	235	17.5
123.45	200	245	22.5
86.93	220	250	15
161.09	220	273	26.5
98.02	250	280	15
165.84	250	299	24.5
167.84	280	325	22.5
276.20	280	351	35.5
204.68	300	351	25.5
321.38	300	377	38.5
128.24	320	351	15.5
244.93	320	377	28.5

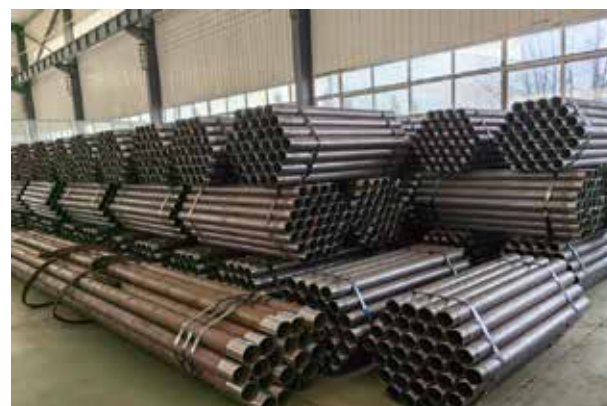
各种英制油缸筒 INCHIN SIZE OF TUBE

内径 (ID) (单位:unit, 英制:inch)							
1 $\frac{1}{2}$ "	2"	2 $\frac{1}{2}$ "	3"	3 $\frac{1}{2}$ "	4	5"	6"

车间照片 WORKSHOP PHOTOS



油缸筒
Cylinder Tube



高精度冷拔管
Cold Drawn Tube



镀铬活塞杆
Chrome Plated Rod



空心轴
Hollow Chrome Plated Rod



油缸筒
Cylinder Tube



高精度冷拔管
Cold Drawn Tube



镀铬活塞杆
Chrome Plated Rod



空心轴
Hollow Chrome Plated Rod



油缸筒
Cylinder Tube



高精度冷拔管
Cold Drawn Tube



镀铬活塞杆
Chrome Plated Rod



空心轴
Hollow Chrome Plated Rod

生产设备 PRODUCTION EQUIPMENT



车间照片
Plant Area



无心磨床
Centerless Grinding Machine



珩磨机
Honing Machine



矫直机
Straightening Machine



液压冷拔机
Cold Drawing Machine



数控刮削滚光机床
CNC Skived and Roller Burnished Machine



中频调质线
Medium Frequency Quenching and Tempering Line



圆盘锯
Circular Saw Machine



剥皮机
Peeling Machine

检测设备 INSPECTION EQUIPMENT



测铬仪
Chromium Meter



硬度计
Durometer



光洁仪
Cleaning Machine



金相分析仪
Metallographic Analyzer



拉力试验机
Tensile Testing Machine



显微硬度计
Microhardness Tester



超声波探伤仪
Ultrasonic Flaw Detector



光谱仪
A Spectrometer



洛氏硬度计
Rockwell Hardness Tester



盐雾机
Salt Spray Machine



三坐标
Three Coordinate



冲击试验机
Impact Testing Machine

产品图片 Product Photos



镀铬活塞杆
Chrome-Plated Piston Rod



空心轴
Hollow Chrome Plated Shaft



镀铬活塞杆
Chrome-Plated Piston Rod



空心轴
Hollow Chrome Plated Shaft



活塞杆
Piston Rod



空心轴
Hollow Chrome Plated Shaft

活塞杆参数 PISTON ROD PARAMETERS

技术特性 Technical Characteristics

材质/ Material quality	45#, ST52, 25Mn, 20#, 20MnV6, 42CrMo4, 40Cr
尺寸/ Size	φ20-φ500mm
长度/ Length	L200-20000mm
外径公差/ Outer diameter tolerance	f7-f8(其他可定制/Other customizable options)
镀铬层厚度/ Chromium plating thickness	0.02mm-0.50mm
表面粗糙度/ Surface roughness	≤0.05um
直线度/ Straightness	≤0.1mm/m
调质硬度/ Quenching and tempering hardness	HB220-360
高频淬火/ High-frequency quenching	HRC50-60
表面硬度/ Surfacehardness	800-1150HV
表面处理/ Surfacetreatment	镀铬、中高频感应淬火、调质、调质+中高频感应淬火 Chromium plating, medium and high frequency induction hardening, quenching and tempering, quenching and tempering+ medium and high frequency induction hardening
盐雾试验/ Salt spray test	9级 150-300小时/Level9 150-300 hours
可焊接性/ Weldability	好/good
包装/ Packing	防锈油处理后每根套入防水纸管/木箱 After rust prevention ol teatment, each pice is wrapped in a waterproof paper tube / wooden box
证书/ Certificate	提供产品质量报告、镀铬厚度报告、盐雾测试报告等 Provide procluct quality reports, chromium plating thickness reports, sall spray test reports,etc
特殊要求/ Special requirements	根据客户要求定制产品/Customizing products according to customer requirements

化学成分 Chemical Composition

材质 Material quality	C	Si	Mn	P	S	Cr	Ni	Cu	V
45#	0.42-0.50	0.17-0.37	0.50-0.80	≤0.035	≤0.035	≤0.25	≤0.30	≤0.25	/
ST52	≤0.20	≤0.50	≤1.70	≤0.035	≤0.035	≤0.30	≤0.50	≤0.30	≤0.15
25Mn	0.22-0.29	0.17-0.37	0.70-1.0	≤0.035	≤0.035	≤0.25	≤0.30	≤0.25	/
20#	0.17-0.23	0.17-0.37	0.35-0.65	≤0.035	≤0.035	≤0.25	≤0.30	≤0.25	/
20MnV6	0.16-0.22	0.10-0.50	1.30-1.70	≤0.035	≤0.035	≤0.30	≤0.30	≤0.30	0.10-0.20
42CrMo4	0.38-0.45	0.15-0.40	0.60-0.90	≤0.30	≤0.035	0.9-1.20	/	/	/
40Cr	0.37-0.45	0.17-0.37	0.50-0.80	≤0.035	≤0.035	0.8-1.10	≤0.30	≤0.30	/

力学性能 Mechanical Property

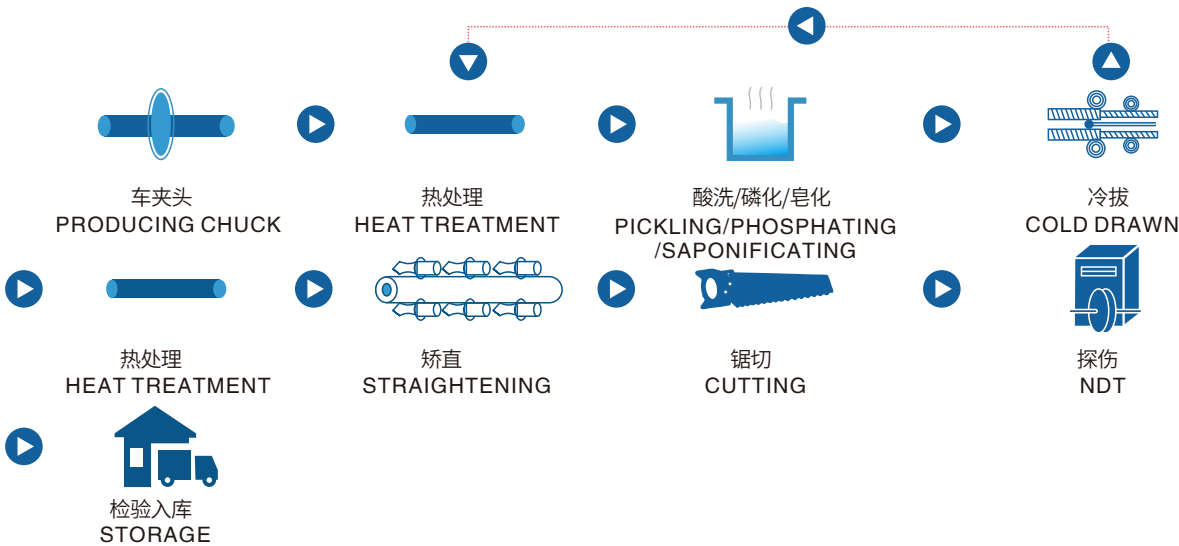
材质 Material quality	抗拉强度 Tensilestrength N/mm ² (MPa)	屈服强度 Yield strength N/mm ² (MPa)	伸长率 Elongation E%	冲击功 Impactenergy J
45#冷拔/45#Cold drawn	≥630	≥540	≥15	≥41
45#调质/45#Quenching and tempering	≥800	≥630	≥20	≥41
Q345D冷拔/Q345D cold drawn	≥620	≥520	≥15	≥27(-20℃)
25Mn 冷拔/25Mn cold drawn	≥620	≥520	≥15	/
20# 冷拔/20# cold drawn	≥520	≥400	≥15	/
20Mn V6	≥750	≥590	≥12	≥40
42CrMo4	≥980	≥850	≥14	≥47
40Cr	≥1000	≥800	≥10	/

实心镀铬活塞杆参数
Solid Chrome Plated Piston Rod Parameters

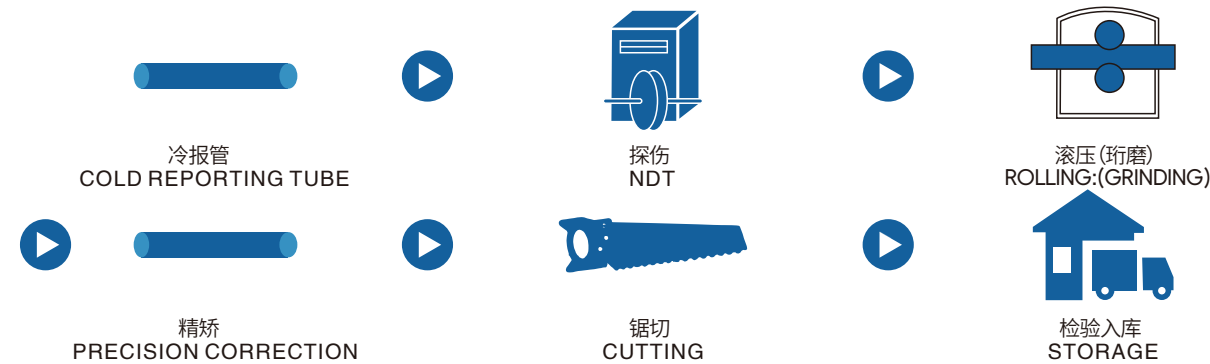
技术特性 Technical Characteristics						
规格 Specifications	每米重 Weight Per Metar	镀铬面积 Chromium plating area	公差f7 Tolerance f7	公差f8 Tolerance f8	公差f9 Tolerance f9	备注 Remarks
Φ 20	2.5	6.28	0.02-0.041	0.02-0.053	0.02-0.072	Negative tolerance
Φ 22	3	6.9	0.02-0.041	0.02-0.053	0.02-0.072	Negative tolerance
Φ 25	3.9	7.85	0.02-0.041	0.02-0.053	0.02-0.072	Neaative tolerance
Φ 28	4.8	8.8	0.02-0.041	0.02-0.053	0.02-0.072	Neaative tolerance
Φ 30	5.6	9.4	0.02-0.041	0.02-0.053	0.02-0.072	Negative tolerance
Φ 32	6.3	10	0.025-0.05	0.02-0.064	0.02-0.087	Negative tolerance
Φ 35	7.6	11	0.025-0.05	0.02-0.064	0.02-0.087	Negative tolerance
Φ 36	8	11.3	0.025-0.05	0.02-0.064	0.02-0.087	Neaative tolerance
Φ 38	8.9	11.9	0.025-0.05	0.02-0.064	0.02-0.087	Negative tolerance
Φ 40	9.9	12.6	0.025-0.05	0.02-0.064	0.02-0.087	Negative tolerance
Φ 45	12.5	14.1	0.025-0.05	0.02-0.064	0.02-0.087	Negative tolerance
Φ 50	15.4	15.7	0.025-0.05	0.02-0.064	0.02-0.087	Negative tolerance
Φ 55	18.7	17.3	0.03-0.06	0.03-0.076	0.03-0.104	Negative tolerance
Φ 56	19.3	17.6	0.03-0.06	0.03-0.076	0.03-0.104	Negative tolerance
Φ 60	22.2	18.8	0.03-0.06	0.03-0.076	0.03-0.104	Neaative tolerance
Φ 63	24.5	19.8	0.03-0.06	0.03-0.076	0.03-0.104	Neaative tolerance
Φ 65	26.1	20.4	0.03-0.06	0.03-0.076	0.03-0.104	Negative tolerance
Φ 70	30.2	22	0.03-0.06	0.03-0.076	0.03-0.104	Negative tolerance
Φ 75	34.7	23.6	0.03-0.06	0.03-0.076	0.03-0.104	Negative tolerance
Φ 80	39.5	25.1	0.03-0.06	0.03-0.076	0.03-0.104	Neaative tolerance
Φ 85	44.6	26.7	0.036-0.071	0.036-0.09	0.036-0.123	Negative tolerance
Φ 90	50	28.3	0.036-0.071	0.036-0.09	0.036-0.123	Negative tolerance
Φ 95	55.7	29.8	0.036-0.07	0.036-0.09	0.036-0.123	Negative tolerance
Φ 100	61.7	31.4	0.036-0.071	0.036-0.09	0.036-0.123	Negative tolerance
Φ 105	68	33	0.036-0.071	0.036-0.09	0.036-0.123	Negative tolerance
Φ 110	74.7	34.5	0.036-0.071	0.036-0.09	0.036-0.123	Negative tolerance
Φ 115	81.6	36.1	0.036-0.071	0.036-0.09	0.036-0.123	Neaative tolerance
Φ 120	88.8	37.7	0.036-0.071	0.036-0.09	0.036-0.123	Neaative tolerance
Φ 125	96	39.3	0.043-0.083	0.043-0.106	0.043-0.143	Negative tolerance
Φ 130	104.3	40.8	0.043-0.083	0.043-0.106	0.043-0.143	Negative tolerance
Φ 140	120.9	44	0.043-0.083	0.043-0.106	0.043-0.143	Negative tolerance
Φ 150	138.8	47.1	0.043-0.083	0.043-0.106	0.043-0.143	Neaative tolerance
Φ 160	157.9	50.2	0.043-0.083	0.043-0.106	0.043-0.143	Negative tolerance
Φ 170	178.3	53.4	0.043-0.083	0.043-0.106	0.043-0.143	Negative tolerance
Φ 180	199.9	56.5	0.043-0.083	0.043-0.106	0.043-0.143	Negative tolerance
Φ 190	222.7	59.7	0.05-0.096	0.05-0.122	0.05-0.165	Negative tolerance
Φ 200	246.8	62.8	0.05-0.096	0.05-0.122	0.05-0.165	Negative tolerance
Φ 210	272.1	66	0.05-0.096	0.05-0.122	0.05-0.165	Negative tolerance
Φ 220	298.6	69.1	0.05-0.096	0.05-0.122	0.05-0.165	Neaative tolerance
Φ 230	326.4	72.2	0.05-0.096	0.05-0.122	0.05-0.165	Neaative tolerance
Φ 240	355.4	75.4	0.05-0.096	0.05-0.122	0.05-0.165	Negative tolerance
Φ 250	385.6	78.5	0.05-0.096	0.05-0.122	0.05-0.165	Negative tolerance

生产工艺流程
MANUFACTURING PROCESS

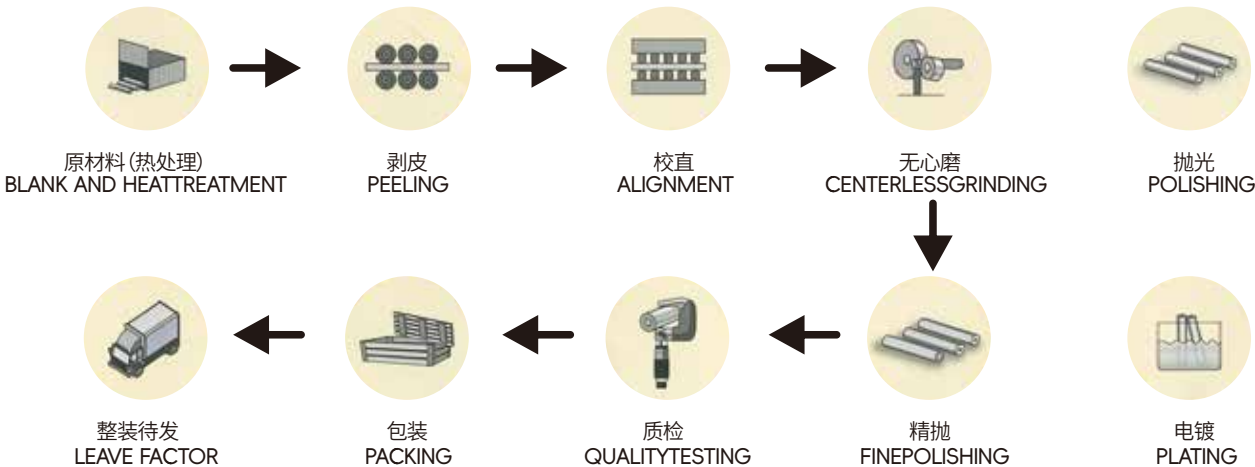
冷拔工艺流程
MANUFACTURING PROCESS OF CLOD DRAWN



滚压(珩磨)工艺流程
ROLLING(GRINDING)PROCESSFLOW



活塞杆/空心轴工艺流程
ROLLING(GRINDING)PROCESSFLOW



油缸缸筒应用领域 APPLICATION FIELDS OF OIL CYLINDER BARREL



挖掘机
Excavator



装载机
Loader



起重机
Crane



泵车
Pump Truck



收割机
Harvester



叉车
Forklift

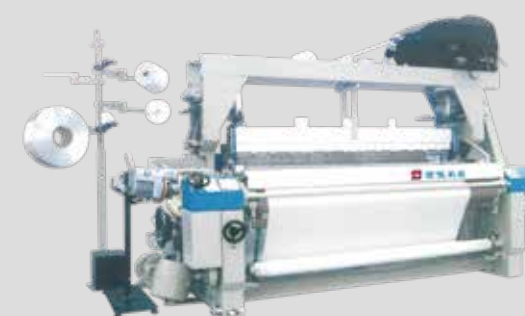


铲车
Tractor Shovel

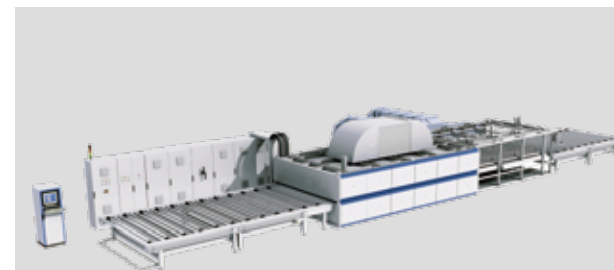


多级缸
Telescopic Cylinder

传动运输辊体管应用领域 APPLICATION FIELD OF TRANSMISSION AND TRANSPORTATION ROLLER BODY TUBE



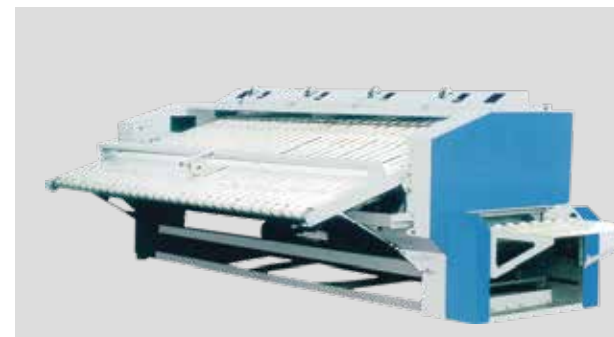
纺织机械
Textile Machinery



玻璃机械
Glass Machinery



印刷机械
Printing Machinery



洗涤机械
Washing Machinery