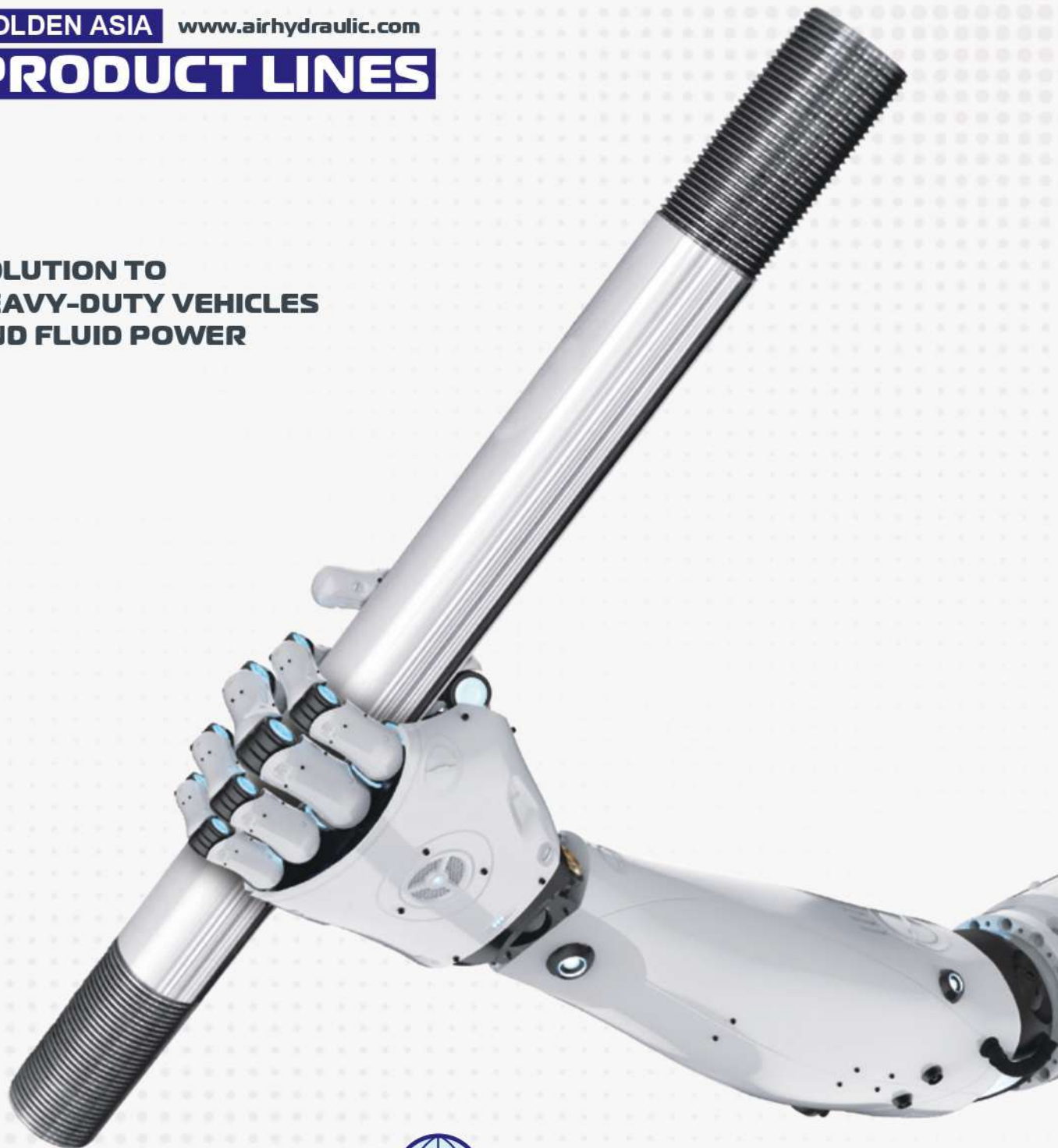


THE POWER BEHIND EVERY EVOLUTION

GOLDEN ASIA www.airhydraulic.com

PRODUCT LINES

**SOLUTION TO
HEAVY-DUTY VEHICLES
AND FLUID POWER**





**Accuracy and Precision in
Quality Management**

Innovative Research

**Environmental
Responsibilities for Business**

Golden Asia Industrial Co., Ltd is a professional manufacturer of honing seamless tubes and hard chromium shaft for heavy machinery, the industry of hydraulics, mining and agricultural machinery. With its products marketing across the world, the company has been accredited with ISO 9001 quality management certification in 2001, ISO 14001 environmental management certification in 2007, ISO 50001 energy management certification in 2017. Besides, we obtained the prize "12th Raising Star" and "The Model of Taiwanese Entrepreneur" awarded by the Taiwanese government, which gave recognition of the excellent service and the highest quality of Golden Asia.

Adhering to the principles of "accuracy and precision in quality management, innovative research and environmental responsibilities for business", we continue to innovate and satisfy the need of market. The spirit to constantly move forward has propelled Golden Asia's name to become synonymous with quality in the realm of hydraulic components.

With proven organizational structure and strong management team, we have gained support from European, American, Japanese and other world-renowned companies. In the future we will continue, in good faith, to adhere to our professional service and core values to our business partner.

PROFILE

ESTABLISHMENT & DEVELOPMENT



2009

- G.A was awarded as "12th Raising Star Award" held by Ministry of Economic Affairs, Taiwan.
- G.A was awarded as "The Best Company" held by Association of Industrial Relations, Taiwan.
- Started to build G.A 3rd plant (10000 m²) in Huatan, Changhua, Taiwan.

2008

- G.A tended to extend China market. G.A built Don-Tai Plant in Jiangsu Province, which was named as "Jiangsu Top Wealth Transmission Machinery Co., Ltd". The capital assets was USD 420,000.
- G.A product has passed PFOS-free and PFOA-free test. (Product contained PFOS or PFOA substances was forbidden in European Union)

2007

- Certified ISO-14001 Environmental Management Certification.
- General Manager Mr. Fang, Chien-Tien, has been elected Chairman of Chinese Fluid Power Association.

2006

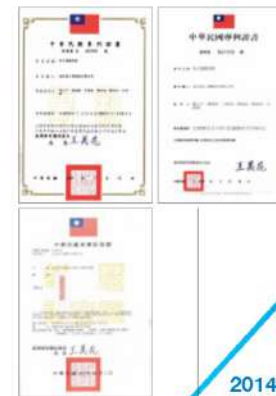
- G.A products were compliant with the limits of RoHS Directive 2002/95/EC.

2004

- Established 2nd plant (3300 m²) in Da-Tsung Industry District, Changhua, Taiwan.

2001

- Certified ISO-9001 Quality Management Certification.



2016

- Parker Taiyo awarded the best supplier to Golden Asia.

2015

- G.A signed the Industry-Academy Collaboration contract with Chienkuo Technology University, to foster the future leaders.
- G.A China factory (Jiangsu Top Wealth) Capital was increased by USD 1,000,000.

2014

- Red and white paper tube packaging is a trademark of Golden Asia, registered in Taiwan.
- All plants were integrated with an Enterprise Resource Planning system and SFT plant tracking system.
- G.A developed Continuous Chromium Plating Machine and got the invention patent from Intellectual Property Office and upgraded advanced peeling machine for enhancing our company value.

2013

- G.A and Germany company Salzgitter Mannesmann Precision Company made an agreement for cooperation.

2012

- General manager of G.A was awarded as "The Outstanding Enterprise Manager between Taiwan and China".

2010

- General manager of G.A, Mr. Fang Chien-Tien, was awarded as "The Model of Taiwan Entrepreneur" by Taiwanese government.

2019

- Adopted industry 4.0-smart factory to improve manufacturing processes and production efficiency.

2018

- Introduced the testing instrument of the resistance to corrosion for CASS test.

2017

- Certified TÜV Rheinland Certification.
- Certified ISO-50001 Energy Management Certification.
- Golden Asia capital was increased by USD 2,700,000.



PISTON RODS / HARD CHROME SHAFT



SPECIFICATION

- External Diameter Accuracy: $f7, f8$
- Surface Roughness: $\text{Max } Ra \ 0.2 \ \mu\text{m}$
- Hard Chrome Thickness:
 $< \Phi 22.225 \text{ mm}$: $\text{Min } 15 \ \mu\text{m}$
 $\geq \Phi 24 \text{ mm}$: $\text{Min } 20 \ \mu\text{m}$
- Surface Hardness: $\text{Min } HV \ 850$
- Straightness:
 $< \Phi 20 \text{ mm}$: $\text{Max } 0.25 / 1000 \text{ mm}$
 $\geq \Phi 20 \text{ mm}$: $\text{Max } 0.2 / 1000 \text{ mm}$
- Roundness: $\text{Tolerance} \times 1/2$
- Standard Length: $3M - 6M \text{ up}$
- Standard Size: $\Phi 6 - \Phi 255 (\Phi 1/4" - \Phi 10")$
- Corrosion Resistance (ISO 9227 NSS):
 $\Phi < 20 \text{ mm } R9 / 72\text{hr } NSS$
 $\Phi \geq 20 \text{ mm } R9 / 120\text{hr } NSS$
- The test of NSS and CASS can be performed in our own laboratory
- Steel Grade: $JIS \ S45C, SAE1045, DIN \ CK45, EN \ C45E, ASTM \ 1045$
 (Special specification & material can be supplied upon request)

CHEMICAL COMPOSITION & MECHANICAL PROPERTIES

Steel Grade		Chemical Analysis %					Forging Temperature
JIS	DIN	C	Si	Mn	P	S	°C
S45C	CK45	0.42 0.48	0.15 0.35	0.60 0.90	< 0.030	< 0.035	0.30 0.90 Slow Cooling

Heat Treatment				Mechanical Properties				
Normalizing °C	Annealing °C	Quenching °C	Tempering °C	(Y.P.) Kgf/mm ²	(T.S.) Kgf/mm ²	(EL) %	Twist %	Hardness HB
820 - 870 Water Cooling	-	-	-	> 35	> 58	> 20	-	167 - 229
-	810 Furnace Cooling	-	-	-	-	-	-	137 - 170
-	-	820 - 870 Water Cooling	550 - 650 Quenching	> 50	> 70	> 17	> 45	204 - 269

HONING / SKIVED AND ROLLER BURNISHED SEAMLESS STEEL PIPE

SPECIFICATION

- Internal Diameter Accuracy: $H7, H8, H9$
- Internal Roughness: $\text{Max } Ra \ 0.2 \ \mu\text{m}$
- Straightness: $1-1.2 / 1000 \text{ mm}$
- Roundness: $\text{Tolerance} \times 1/2$
- Standard Length: $3M - 12M$
- Special Length: $13M \text{ up}$
- Internal Diameter: $\Phi 18 - \Phi 400$
- Steel Grade: $JIS \ STKM13C, DIN \ ST52, SAE1020$
- Other specification can be supplied upon request
 (Max ID: 1000 mm / Max Buffing Length: 13000 mm)



I.D x O.D Ø = APPLY PRESSURE (KG / CM²)

18 x 31	751	45 x 60	346	63 x 76	215	82.55 x 92.07	130	100 x 120	208	125 x 140	125	150 x 170	140	180 x 196	92
18 x 35	900	50 x 55	104	63 x 80	280	82.55 x 95	160	100 x 125	260	125 x 145	166	150 x 175	173	180 x 205	150
20 x 30	520	50 x 57	145	65 x 75	160	82.55 x 98.4	200	100 x 130	312	125 x 152	224	150 x 180	210	180 x 210	175
20 x 40	1040	50 x 58	186	65 x 80	240	85 x 95	122	101.6 x 117.48	160	127 x 146	155	152.4 x 171.5	130	180 x 216	208
25 x 35	416	50 x 60	208	65 x 85	320	85 x 100	190	105 x 120	160	130 x 142	96	152.4 x 177.8	170	180 x 225	260
30 x 36	208	50 x 65	312	70 x 80	148	88.9 x 101.6	150	105 x 125	200	130 x 150	160	160 x 172	78	200 x 216	83
30 x 40	346	50 x 70	416	70 x 82	178	88.9 x 105	190	107.95 x 125	170	130 x 153	190	160 x 178	117	200 x 220	100
30 x 45	550	50.8 x 63.5	280	70 x 85	238	90 x 100	115	110 x 120	95	130 x 155	200	160 x 180	135	200 x 232	168
32 x 42	325	55 x 65	189	70 x 90	297	90 x 105	173	110 x 125	142	135 x 160	200	160 x 185	162	200 x 242	210
35 x 45	297	55 x 70	283	75 x 85	138	90 x 110	231	110 x 130	109	140 x 153	96	160 x 190	195	203.2 x 228.5	130
38 x 50	330	57 x 70	240	75 x 90	200	95 x 110	165	110 x 135	240	140 x 155	115	165 x 190	160	203.2 x 241.3	195
38.1 x 50.8	335	60 x 70	173	75 x 95	270	95 x 115	220	114.3 x 133.35	190	140 x 160	148	165.1 x 190.5	160	220 x 260	190
40 x 44	104	60 x 72	208	76.2 x 88.9	170	98.4 x 111.13	140	115 x 130	140	140 x 165	185	170 x 190	125	225 x 254	135
40 x 46	156	60 x 75	260	76.2 x 92.07	220	100 x 107	73	115 x 135	185	140 x 170	225	170 x 195	150	250 x 267	71
40 x 48	208	60 x 80	346	80 x 87	90	100 x 109	94	120 x 132	104	145 x 170	180	170 x 205	220	250 x 290	170
40 x 50	200	63.5 x 76.2	210	80 x 89	117	100 x 110	104	120 x 135	130	145 x 175	220	175 x 190	95	250 x 298	200
40 x 55	390	63 x 69	99	80 x 90	130	100 x 114	146	120 x 140	173	150 x 160	70	175 x 195	120	300 x 318	62
40 x 60	520	63 x 71	132	80 x 95	195	100 x 115	156	125 x 135	75	150 x 163	90	177.8 x 203.2	180	300 x 355	195
45 x 55	231	63 x 73	165	80 x 100	260	100 x 116	166	125 x 137	100	150 x 168	125	177.8 x 215.9	220		

■ I.D x O.D Ø ■ Apply Pressure (Kg/cm²)

CHEMICAL COMPOSITION & MECHANICAL PROPERTIES

Mark	Chemical Analysis %					Tempering	Tensile Test			
	C	Si	Mn	P	S		Tensile (N/mm²)	Yield (N/mm²)	v (%) Elong (%)	
									Test Place 11th, 12th L	5th Test Place V
STKM13A	0.25 >	0.35 >	0.30 0.90	0.040 Under	0.040 Under		300	220	30	25
STKM13B							450	310	20	15
STKM13C							520	390	15	10

Formula of Pipe Wall Thickness Pressure Resistant Gauge

$t = P \cdot D / 200 \cdot S$
 t = Wall Thickness (mm)
 P = The Largest Pressure (Kg/cm²)
 D = Steel Pipe Inside Diameter (mm)
 $S = \sigma / 5 \text{ Kg / mm}^2$
 σ = The Lowest Numerical Value of
 Tensile (Kg/mm²)

HONED TUBE

(ID Hard Chromium)



SPECIFICATION

- Internal Diameter Accuracy: F8
- Internal Roughness: *Max Ra 0.2 μm*
- Straightness: 1-1.2 / 1000 mm
- Standard Length: 3M - 11M
- Internal Diameter: Ø 18 - Ø 300
- Steel Grade : JIS STKM13C, DIN ST52, SAE1020
- Other specification can be supplied upon request (Max ID: 1000 mm)

Used in pneumatic machinery, food machinery, or humid environment that is easier to cause rust

SPECIFICATION

- External Diameter Accuracy: f8
- Surface Roughness: *Max Ra 0.2 μm*
- Surface Hardness: *Min HV 850*
- Roundness: *Tolerance × 1/2*
- Hard Chrome Thickness:
 - < Ø22.225 mm: *Min 15 μm*
 - ≥ Ø24 mm: *Min 20 μm*
- Standard Length: 2M - 6M up
- Steel Grade: JIS STKM13C, STKM11A, STKM13A, S45C

I.D x O.D Ø

4 x 8	40 x 60
6 x 12	45 x 60
14 x 20	50 x 70
19 x 25	60 x 80
18 x 30	63 x 80
20 x 30	65 x 85
20 x 40	70 x 90
30 x 40	75 x 95
24 x 45	80 x 100
30 x 45	85 x 100
25 x 50	100 x 120
38 x 50	130 x 150

PIPE ROD

(Hollow Bar)



SEAMLESS TUBE FOR TELESCOPIC HYDRAULIC CYLINDER

(ID Honed & OD Chromium Plated)



SPECIFICATION

- External Diameter Accuracy: f7, f8
- Surface Roughness: *Max Ra 0.2 μm*
- Hard Chrome Thickness:
 - < Ø22.225 mm: *Min 15 μm*
 - ≥ Ø24 mm: *Min 20 μm*
- Surface Hardness: *Min HV 850*
- Internal Diameter Accuracy: H7, H8, H9
- Internal Roughness: *Max Ra 0.2 μm*
- Roundness: *Tolerance × 1/2*
- Special Length: 13 M
- Steel Grade: JIS STKM13C
- Other specification can be supplied upon request

Used for the telescopic hydraulic cylinder, such as the hydraulic mechanism adopted on the garbage compactors, aerial ladder, forklifts, multilevel car park services

I.D x O.D Ø

20 x 30	65 x 80	125 x 140
30 x 40	70 x 80	125 x 150
35 x 41	70 x 85	140 x 160
38 x 50	80 x 95	150 x 170
40 x 50	80 x 100	150 x 180
50 x 60	85 x 100	160 x 180
50 x 70	100 x 115	160 x 190
60 x 70	100 x 120	180 x 200
60 x 80	100 x 125	200 x 230
63 x 75	110 x 125	250 x 290

SEAMLESS STAINLESS STEEL PRECISION TUBING

SPECIFICATION

- Steel Grade: JIS G3446 SUS304TK, SUS 316, SUS410
- Internal Diameter Accuracy: H7, H8, H9
- Internal Roughness: Ra 0.2 μm - Ra 0.8 μm

SUS 304TK-605

Chemical Composition (%)						
C	Si	Mn	P	S	Ni	Cr
≤ 0.08	≤ 1.00	≤ 2.00	≤ 0.040	≤ 0.030	8.00 / 11.00	18.00 / 20.00

MECHANICAL PROPERTIES

Steel Grade	Tensile (N / mm ²)	Yield (N / mm ²)	Elongation % Test Piece 11th, 12th
SUS304TK-650	520	205	60

I.D x O.D Ø

20 x 30	640	50 x 57	179	90 x 105	210
25 x 30	256	50 x 60	250	100 x 110	140
30 x 36	256	63 x 71	163	100 x 114	179
32 x 37	173	63 x 73	210	100 x 116	200
40 x 46	192	80 x 89	144	125 x 138	133
40 x 50	260	80 x 93	210		

Ideal for the petrochemical, chemical, foods machinery, medical apparatus, shipbuilding industries, as well as at various acidic and alkali worksites

■ I.D x O.D Ø ■ Apply Pressure (Kg/cm²)



INDUCTION HARDENED SHAFT

SPECIFICATION

- External Diameter Accuracy: f8
- Surface Roughness: Max Ra 0.2 μm
- Hard Chrome Thickness:
 - < $\Phi 22.225$ mm: Min 15 μm
 - $\geq \Phi 24$ mm: Min 20 μm
- Surface Hardness: HRC 55° $\pm 2^\circ$
- Hardened Depth: 0.5 mm - 1.5 mm
- Middle Frequency Hardened Depth: 3 mm - 5 mm
- Straightness:
 - < $\Phi 20$ mm: Max 0.25 / 1000 mm
 - $\geq \Phi 20$ mm: Max 0.2 / 1000 mm
- Roundness: Tolerance $\times 1/2$
- Standard Length: 2M - 6M
- Standard Size: $\Phi 6$ - $\Phi 255$ ($\Phi 1/4''$ - $\Phi 10''$)
- Steel Grade: JIS S45C, S55C, SAE1045, DIN CK45, JIS SCM440, Other specification can be supplied upon request



Ideal for heavy machinery, construction equipment, and as position mount for a variety of heavy equipment

SUJ-2 BEARING RODS



SPECIFICATION

- External Diameter Accuracy: g6
- Surface Roughness: Max Ra 0.2 μm
- Surface Hardness: HRC 60° $\pm 2^\circ$
- Hard Chrome Thickness:
 - < $\Phi 22.225$ mm: Min 10 μm
 - $\geq \Phi 24$ mm: Min 15 μm
- Straightness:
 - < $\Phi 20$ mm: Max 0.25 / 1000 mm
 - $\geq \Phi 20$ mm: Max 0.2 / 1000 mm
- Roundness: Tolerance $\times 1/2$
- Standard Length: 2M - 6M
- Standard Size: $\Phi 8$ - $\Phi 160$
- Steel Grade: JIS SUJ-2, DIN CF53
- Other specification can be supplied upon request

Ideal for fabrication of a variety of guide rods, bearing platform, guideposts, linear shaft rods, and mechanical guide rods

STAINLESS CHROMIUM RODS

SPECIFICATION

- External Diameter Accuracy: f8
- Surface Roughness: Max Ra 0.2 μm
- Hard Chrome Thickness:
 - < $\Phi 22.225$ mm: Min 15 μm
 - $\geq \Phi 24$ mm: Min 20 μm
- Surface Hardness: Min HV 850
- Straightness:
 - < $\Phi 20$ mm: Max 0.25 / 1000 mm
 - $\geq \Phi 20$ mm: Max 0.2 / 1000 mm
- Roundness: Tolerance $\times 1/2$
- Standard Length: 2M - 6M

- Standard Size: $\Phi 6$ - $\Phi 200$
- Steel Grade: SUS304, SUS316, SUS410, other specification can be supplied upon request

Coordinated with stainless steel pipes, the products are adopted in acidic or alkali environment, sensor cylinders, mechanical guide rods, medical supplies, vessels and ships

Steel Grade	Chemical Composition (%)							
	C	Si	Mn	P	S	Ni	Cr	Mo
SUS304	≤ 0.08	≤ 1.00	≤ 2.00	≤ 0.10	≤ 0.20	8.00 - 12.00	17.00 - 20.00	0.10 - 0.30
SUS316	≤ 0.08	≤ 1.00	≤ 2.00	≤ 0.045	≤ 0.03	10.00 - 14.00	16.00 - 18.00	2.00 - 3.00

SCM 440 CHROME MOLYBDENUM STEEL BAR

SPECIFICATION

- External Diameter Accuracy: f7, f8
- Surface Roughness: Ra Max 0.2 μm
- Hard Chrome Thickness:
 - < $\Phi 22.225$ mm: Min 15 μm
 - $\geq \Phi 24$ mm: Min 20 μm
- Surface Hardness: Min HV 850
- Straightness:
 - < $\Phi 20$ mm: Max 0.25 / 1000 mm
 - $\geq \Phi 20$ mm: Max 0.2 / 1000 mm
- Roundness: Tolerance $\times 1/2$
- Standard Length: 2M - 6M
- Standard Size: $\Phi 10$ - $\Phi 200$ ($\Phi 1/4"$ - $\Phi 10"$)
- Steel Grade: JIS G4105 (SCM440), SAE4140, DIN 42CrMo4, EN 42CrMo4
- Upon request: treatment of induction quenched and tempered

Steel Grade	Chemical Composition (%)							
	C	Si	Mn	P	S	Ni	Cr	Mo
SCM440	0.38 0.43	0.15 0.35	0.50 0.85	≤ 0.030	≤ 0.030	-	0.90 1.20	0.15 0.30



ALUMINUM ALLOY PNEUMATIC CYLINDER TUBE

- Steel Grade: JIS A6063TD-T5
- Internal Roughness: RZ3.2S Max
- Tolerance: H9
- Anodic Oxide Film: 30 $\mu\text{m} \pm 5 \mu\text{m}$
- Hardness: HV400

Used in pneumatic cylinder



I.D x O.D. x Length	Weight
20 x 25 x 2050	0.98
25 x 30 x 2050	1.19
30 x 35 x 2050	1.41
32 x 37 x 3050	2.23
40 x 45 x 3050	2.75
50 x 55 x 3050	3.39
50 x 58 x 3050	5.59
63 x 68 x 3050	4.23
63 x 72 x 3050	7.85
80 x 86.4 x 3050	6.88
100 x 106 x 3050	7.99
125 x 135 x 2050	11.3
150 x 160 x 2050	13.47
160 x 170 x 2050	14.35
200 x 210 x 2050	17.84

SEAMLESS CARBON STEEL TUBE FOR HYDRAULIC PRESSURE LINE



- Steel Grade: JIS G3455, OST2, ST37.4

Steel Grade	Chemical Composition (%)					
	C	Si	Mn	P	S	Cu
OST-2	0.08 0.18	0.10 0.35	0.30 0.60	0.035 under	0.035 under	0.020 under

(T.S) (N/mm ²)	(Y.P) (N/mm ²)	ELOVG (%) Test Piece 11th, 12th
min 340	min 235	min 25

4	1	4M, 6M	700	18	2.5	4M, 6M	269
6	1	4M, 6M	350	20	2	4M, 6M	175
8	1	4M, 6M	233	20	2.5	4M, 6M	233
8	1.5	4M, 6M	420	20	3	4M, 6M	300
10	1	4M, 6M	175	22	2	4M, 6M	155
10	1.5	4M, 6M	300	22	2.5	4M, 6M	265
12	1.2	4M, 6M	175	25	2.5	4M, 6M	175
12	1.5	4M, 6M	233	25	3	4M, 6M	221
15	1.2	4M, 6M	133	28	3	4M, 6M	190
15	1.5	4M, 6M	175	30	3	4M, 6M	175
15	2	4M, 6M	250	34	3.5	4M, 6M	181
18	1.5	4M, 6M	140	38	4	4M, 6M	187
18	2	4M, 6M	200	42	4	4M, 6M	164

■ O.D (mm) ■ Thickness (mm) ■ Length ■ Apply Pressure (Kg/cm²)

HYDRAULIC CYLINDER PNEUMATIC CYLINDER



ID of Cylinder	Piston Rod			
	Pneumatic	Hydraulic		
		High Pressure	Middle Pressure	Low Pressure
40	16	20	22.4	18
50	20	35.5	28	22.4
63	20	45	35.5	28
80	25	56	45	35.5
100	30	70	56	45

Note: (Unit): mm
Please choose the suitable specification according to working pressure, stroke and material of piston rod.

ID of Cylinder	Piston Rod			
	Pneumatic	Hydraulic		
		High Pressure	Middle Pressure	Low Pressure
125	35	90	70	56
140	35.5	100	80	63
150	40	100	80	65
160	40	110	90	70
180	45	125	100	80
200	50	140	110	90
220	56	160	125	100
250	60	180	140	110

TOLERANCE OF HARD CHROMIUM SHAFT

Dia. mm Φ	f		g	h		
	f7	f8	g6	h7	h8	h9
3 mm	-0.006 -0.016	-0.006 -0.02	-0.002 -0.008	0 -0.01	0 -0.014	0 -0.025
3 mm - 6 mm	-0.010 -0.022	-0.010 -0.028	-0.004 -0.012	0 -0.012	0 -0.018	0 -0.03
6 mm - 10 mm	-0.013 -0.028	-0.013 -0.035	-0.005 -0.014	0 -0.015	0 -0.022	0 -0.036
10 mm - 18 mm	-0.016 -0.034	-0.016 -0.043	-0.008 -0.017	0 -0.018	0 -0.027	0 -0.043
18 mm - 30 mm	-0.020 -0.041	-0.020 -0.053	-0.007 -0.02	0 -0.021	0 -0.033	0 -0.052
30 mm - 50 mm	-0.025 -0.05	-0.025 -0.064	-0.009 -0.025	0 -0.025	0 -0.039	0 -0.062
50 mm - 80 mm	-0.030 -0.06	-0.030 -0.079	-0.010 -0.029	0 -0.03	0 -0.046	0 -0.074
80 mm - 120 mm	-0.036 -0.071	-0.036 -0.09	-0.012 -0.034	0 -0.035	0 -0.054	0 -0.087
120 mm - 180 mm	-0.043 -0.083	-0.043 -0.106	-0.014 -0.039	0 -0.04	0 -0.063	0 -0.1
180 mm - 250 mm	-0.050 -0.096	-0.050 -0.122	-0.015 -0.044	0 -0.046	0 -0.072	0 -0.115
250 mm - 315 mm	-0.056 -0.108	-0.056 -0.137	-0.017 -0.049	0 -0.052	0 -0.081	0 -0.13
315 mm - 400 mm	-0.062 -0.119	-0.062 -0.151	-0.018 -0.054	0 -0.057	0 -0.089	0 -0.14
400 mm - 500 mm	-0.068 -0.131	-0.068 -0.165	-0.020 -0.06	0 -0.063	0 -0.097	0 -0.155

(Unit) μ = 0.001 mm

TOLERANCE OF HONED TUBE

Dia. mm Φ	F	H			
	F8	H7	H8	H9	H10
3 mm	+0.020 0	+0.010 0	+0.014 0	+0.025 0	+0.040 0
3 mm - 6 mm	+0.028 0	+0.012 0	+0.018 0	+0.030 0	+0.048 0
6 mm - 10 mm	+0.035 0	+0.015 0	+0.022 0	+0.036 0	+0.058 0
10 mm - 18 mm	+0.043 0	+0.018 0	+0.027 0	+0.043 0	+0.070 0
18 mm - 30 mm	+0.053 0	+0.021 0	+0.033 0	+0.052 0	+0.084 0
30 mm - 50 mm	+0.064 0	+0.025 0	+0.039 0	+0.062 0	+0.100 0
50 mm - 80 mm	+0.076 0	+0.030 0	+0.046 0	+0.074 0	+0.120 0
80 mm - 120 mm	+0.090 0	+0.035 0	+0.054 0	+0.087 0	+0.140 0
120 mm - 180 mm	+0.106 0	+0.040 0	+0.063 0	+0.100 0	+0.160 0
180 mm - 250 mm	+0.122 0	+0.046 0	+0.072 0	+0.115 0	+0.185 0
250 mm - 315 mm	+0.137 0	+0.052 0	+0.081 0	+0.130 0	+0.210 0
315 mm - 400 mm	+0.151 0	+0.057 0	+0.089 0	+0.140 0	+0.230 0
400 mm - 500 mm	+0.165 0	+0.063 0	+0.097 0	+0.155 0	+0.250 0

(Unit) μ = 0.001 mm



OUR TECHNOLOGY OF CONTINUOUS CHROME PLATING



Golden Asia has equipped with advanced chrome plating machines for hard chromed bars, those machines integrate **industry 4.0-smart factory** to improve quality of chrome layer and production efficiency.

We developed Continuous Chromium Plating Machines with National Changhua University of Education and got the invention patent from Intellectual Property Office. The machines adopt the latest technology of continuous plating, which is the new trend in the hard chrome plating industry. In the continuous chrome plating process, those semi-finished bars are controlled by computer and loaded by automatic robotic arm into the production line.

Afterwards, those bars will be chromed horizontally with our machine one after another. The bar can be chromed from Ø10 mm to Ø200 mm with our machines automatically, and is able to achieve constant layer chrome. Also, the length can chrome up to 20 M. This process ensures that the chrome layer is homogeneous, and avoids the possibility of micro-hole.

“The result of salt spray test can last more than 500 hours in NSS test, rating 9 in CASS test.”

NSS TESTING
(200 HOURS)



NSS TESTING
(500 HOURS)



CASS TESTING
Rating 9





Grinding Machine

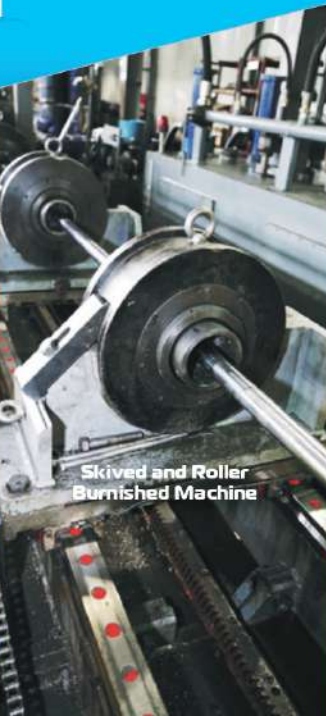
OUR MODERNIZED EQUIPMENT



Vertical Honing Machine



Horizontal Honing Machine



Skived and Roller Burnished Machine

Salt Spray Corrosion Resistance Test Machine (CASS)

Bore Gauge for Cylinder Tube

Surface Roughness for Hard Chromium Shaft

Salt Spray Corrosion Resistance Test Machine (NSS)

Sulfuric Acid Measuring Machine

Machine for Testing Pipe Pressure

Chrome Coating Thickness Gauge

Hardness Testing Instrument for Induction Hardened

Ring Gauge

Hardness Testing Instrument

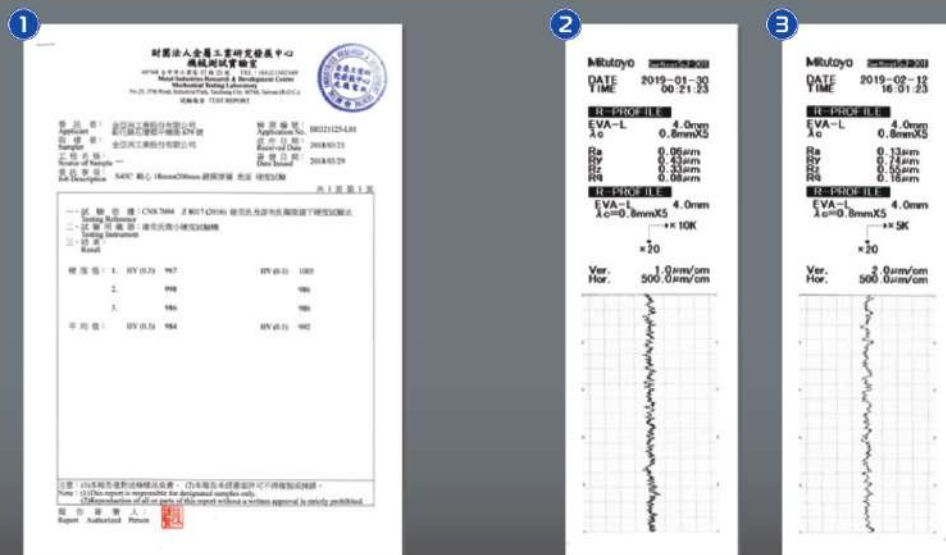
Hardness Testing Instrument for Hard Chrome

Micrometer for Hard Chromium Shaft

Straightness Testing Instrument

TESTING INSTRUMENT

TESTING REPORT OF HONING SEAMLESS STEEL PIPE & HARD CHROMIUM SHAFT



APPLICATION

- Agricultural Machinery
- Construction Equipment
- Dump Trucks
- Excavators
- Forklifts
- Garbage Compactors
- Grinding machine
- Hydraulic Sawing Machine
- Injecting & Die Casting Machine
- Lifter
- Mining Equipment
- Mobile Cranes
- Oil Drilling Platform
- Plastics
- Skidders
- Wooden Working Machine



MOVING TOWARDS
A SMART FUTURE



- 1 HARD CHROMIUM SHAFT SURFACE
HARDNESS TESTING REPORT
- 2 HARD CHROMIUM SHAFT SURFACE
ROUGHNESS TESTING REPORT
- 3 INTERNAL ROUGHNESS TESTING REPORT OF
HONING SEAMLESS STEEL PIPE



OUR INTERNATIONAL BUSINESS PARTNER



TAIWAN BRANCH

North Branch Office
Central Branch Office
South Branch Office

TAIWAN FACTORY

1st Factory
2nd Factory
3rd Factory

CHINA FACTORY

Jiangsu Top Wealth Transmission Machinery Co., Ltd.
Gau-Shin Technical District, Dung-Tai City, Jiangsu

GOLDEN ASIA INDUSTRIAL CO., LTD.

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