

SIXSTAR

**EXPERIENCE
CUSTOM GEARS**



**SIX STAR MACHINERY INDUSTRY
YIEH CHEN MACHINERY**



SIX STAR

RESUME OF COMPANY HISTORY

1960

Six Star Gears Co., Ltd.

1975

Six Star Machinery Industry Co., Ltd. founded by Six Brothers in Taiwan

1984

Yieh Chen Machinery Co., Ltd. (Machinery Department) founded in Taiwan

1988

Allstar Precision Machinery Co., Ltd. Founded

1989

Summoon Co., Ltd. (Thailand Branch)

1989

Six Star Group Founded (Currently with more than 7 business units), manufacturing aerospace gear

1992

Six Star Group Founded (Rollform Tools Co., Ltd. (U.K. Branch))

1995

ISO 9002 certification

1996

Chin-Fa Automatic Machinery Co., Ltd. (China Branch)

2006

Formally received first Boeing Aerospace orders

2010

Developing gears for robotic arms

2011

Developing gears for solar tracking system

2013

New factory at Taichung Technical Machinery Park completed

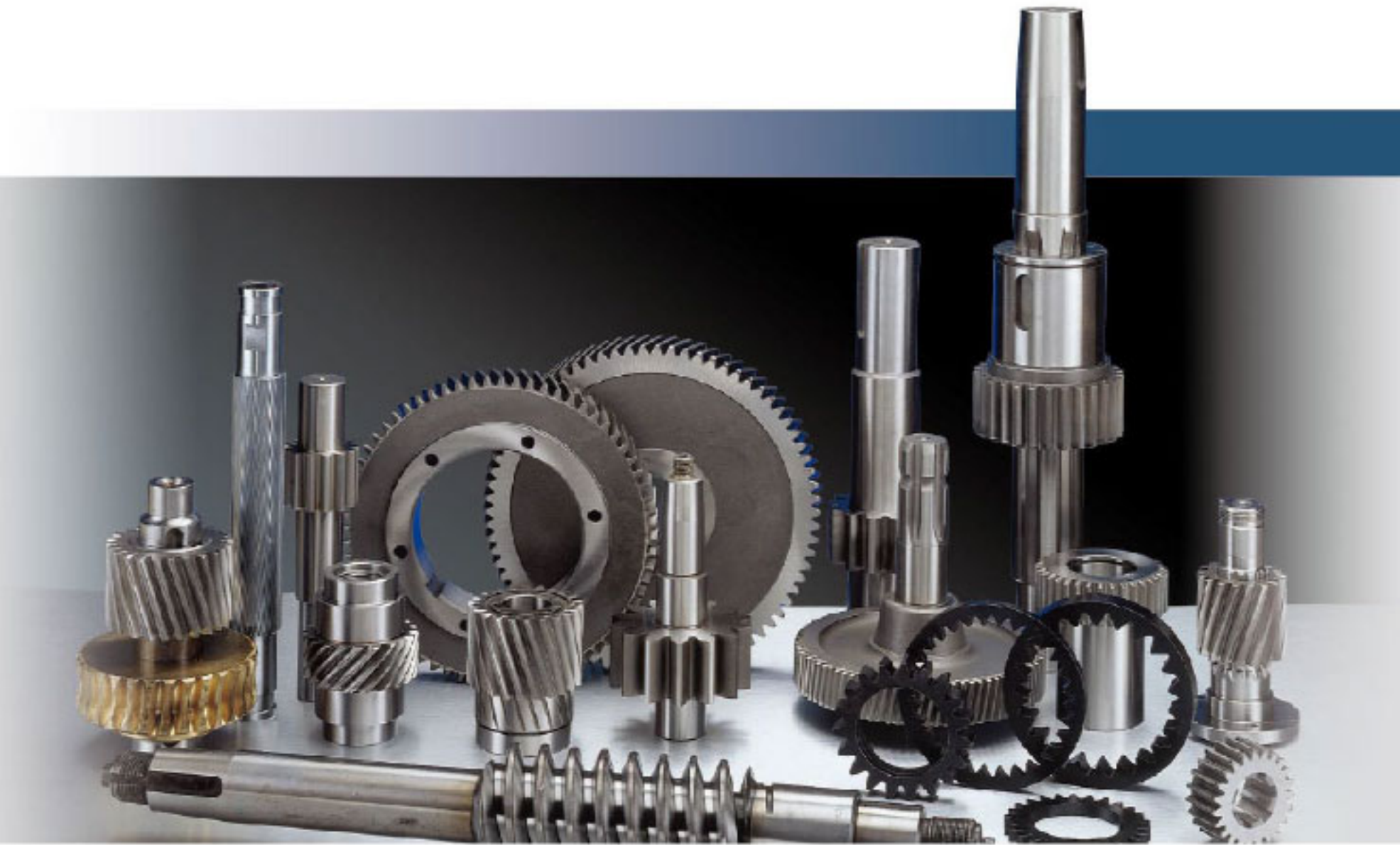
INTRODUCTION

SIX STAR PRODUCE CUSTOM MADE GEARS WITH ALL THE ACCURACY YOUR APPLICATION REQUIRES.

Founded in 1975 by six brothers, Six Star owns 40 years of experience on manufacturing gear products. Throughout these years, Six Star has become one of the Top Five gear manufacturers in Taiwan. With a focus on precision gears and gearboxes, Six Star offers a broad range of industries, including machine tools, aerospace, agriculture machinery, robotic arms, Engine transmission, hydraulic pumps and industrial machines.

Six Star ensures detail of each manufacturing process well planned and executed, moreover, we employs machine tools from Switzerland, Germany, USA, and Japan to make gears comply with DIN, AGMA, JIS, and GB quality standards. This dedication has led Six Star win the partnership with global well-known companies such as Altra Industrial Motion, Ausco products, Boeing, Bosch, John Deere, Matrix International Limited, Toshiba, FS-Elliot and much more are under going continuously.

To meet capacity demands, Six Star constructs a new manufacturing plant and headquarters in The Taichung City Precision Machinery Innovation Technology Park. This plant is with 19,140 square meters area and starts running production from March 2013. Furthermore, Six Star invests on new machine equipments which include Gear grinding machines, bevel gear machines, Measurement machines and other basic machine tools for production usage. With new facilities, Six Star can offer increased capacity and more advanced manufacturing processes using the latest technology. Six Star aims to offer top quality, shorter lead time, and reasonable cost of gear products to each valued customer by this great milestone.



MANAGEMENT PHILOSOPHY

- Give organization vitality
- Give systems life
- Give company development
- Give customers satisfaction



HIGH PRECISION

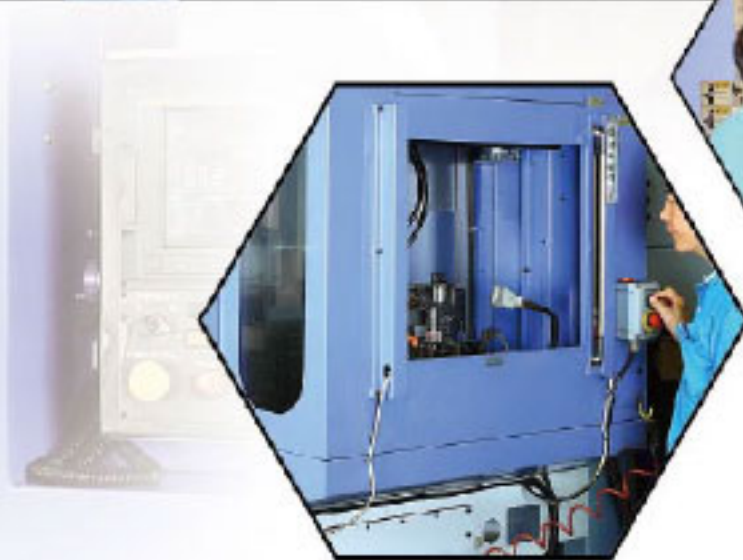


PRECISION MACHINING WITH STATE-OF-THE-ART MANUFACTURING EQUIPMENT.

To ensure that each step of the working process meets Six Star's strict quality requirements, only machines from reputable, well-established companies are adopted. From production use of gear grinding, hobbing, shaping, and shaving to gear measurement equipments, Six Star employs machines from Reishauer, Kapp & Niles, Okamoto, Mitsubishi, and Klingelnberg. Employment of these machines in conjunctions with Six Star's rigid manufacturing process allows our gear product quality meets DIN-2, JIS 0, and AGMA 15 qualification standard.



INNOVATION



MACHINE TOOLS



SIX STAR provides precise, low noise and custom products

In addition, SIX STAR produces spur gears, helical gears, double helical gears, bevel gears, worm and worm gears, and shaft and planetary gearboxes. Today, SIX STAR can provide precise, low-noise custom products within a range of specifications.



Gear and Shaft Capabilities

Quality Level

DIN 2 Grade

JIS 0 Grade

AGMA 15 Grade

Manufacture Range

Gear	Max. Outside Diameter: 2000 mm
	Max. Module: 34 mm
Shaft	Max. Outside Diameter: 350 mm
	Max. Length: 1500 mm

INDUSTRIAL MACHINES



Solar tracking system



Printing machines



Textile machines



Agriculture parts



Bevel gear

ROBOTIC ARMS



According to forecasts, the worldwide robotics market will reach USD 5 billion by 2015.

Cycloid gear reducers are one of the exciting solutions SIX STAR provides for robotics. The structure of the cycloid gear reducer is simpler and smaller than traditional gears, allowing for the unique torque, efficiency, and size requirements of modern robotics. They also provide a cost advantage over other gears. Through constant research and innovation, SIX STAR continues to improve precision and efficiency to the benefit of our customers.



Cycloid gear

AEROSPACE



SIX STAR has
manufactured gears
for aerospace applications
for more than 20 years.

Since 2006, SIX STAR has been providing gears to Boeing as a qualified vendor for their aircraft, and is currently in the process of AS 9100 certification. Aerospace gears SIX STAR provides include spur gears, helical gears, worm and worm gears, and splined shafts. These gears can be used in control systems, pumps, planetary gears, landing mechanisms and other aerospace applications.



Aerospace gears

HYDRAULIC PUMP & TRANSMISSION



SIX STAR provides precise, low noise and custom products

In addition, SIX STAR produces spur gears, helical gears, double helical gears, bevel gears, worm and worm gears, and shaft and planetary gearboxes. Today, SIX STAR can provide precise, low-noise custom products within a range of specifications.



Pump gear



Pump gear

HIGH QUALITY



Quality is tradition at Six Star

Six Star has received ISO9002 certification and schedule to acquire stricter aerospace quality standards AS-9100 certification in 2013. We are also a member of the American Gear Manufacturers Association (AGMA).

By paying close attention to every aspect of the gears and gearboxes produced-including profile, lead, pitch, run out, and efficiency- and using measuring facilities, Six Star can ensure that the gears we produced certainly meet or exceed international standards.



SERVING A WIDE VARIETY OF INDUSRY

1. Machine tools
2. Industrial machinery
3. Transmission and engine parts for automotive and motor cycles.
4. Agricultural machinery
5. Bulldozer, Furrow machine, Ditcher, Earthmoving machine.
6. Gear pump
7. Sports equipment, golf carts
8. Boats, aircrafts
9. Robotics
10. Aerospace

<http://www.yiehchen.com>



SIXSTAR

SIX STAR MACHINERY INDUSTRY CO., LTD.
YIEH CHEN MACHINERY CO., LTD.

FACTORY:

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OFFICE:

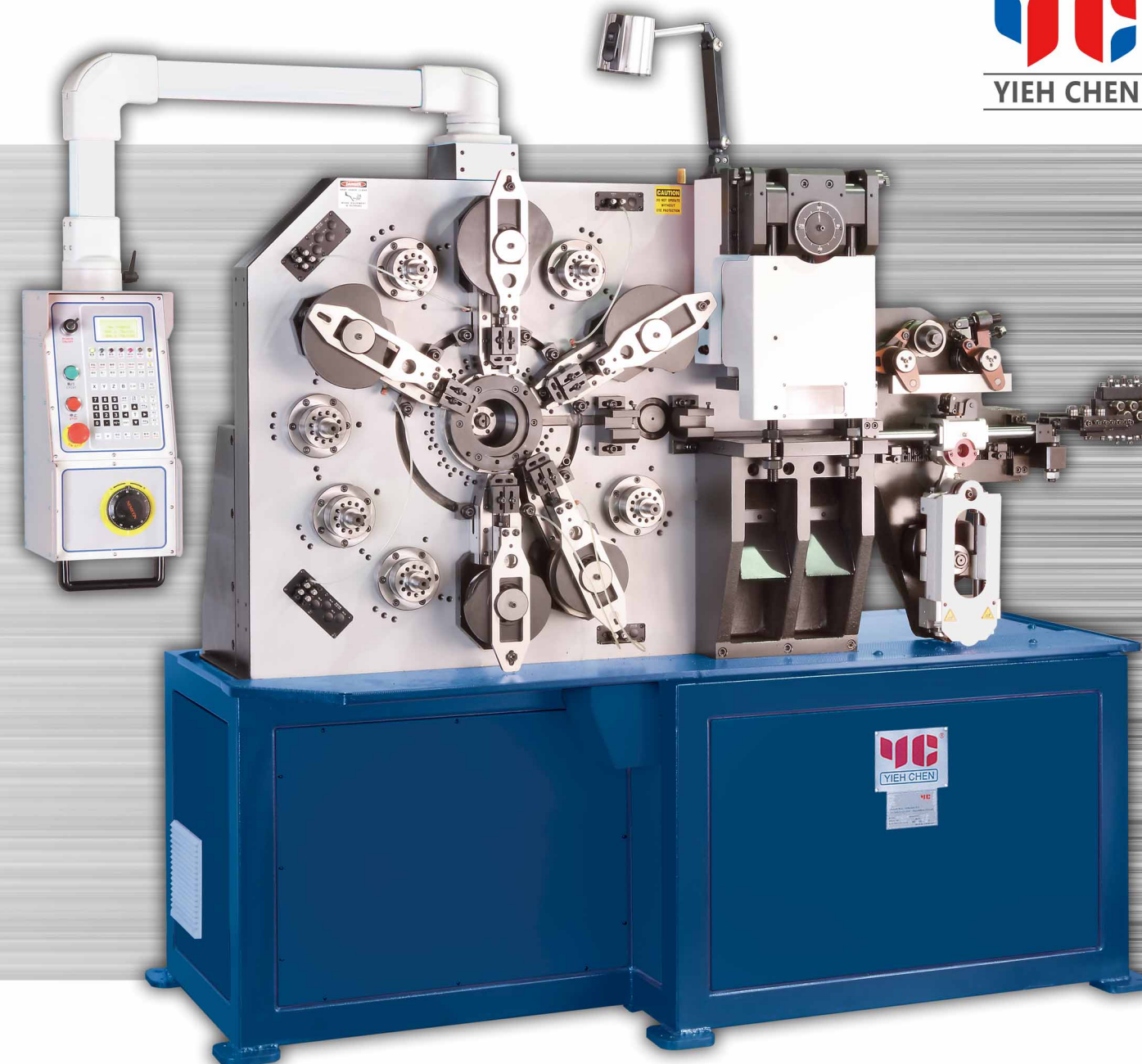
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MULTI WIRE, STRIP FORMING MACHINE

We are the specialist in Taiwan in the manufacture of a series of machinery for making hooks, snaps, buckles, shackles, electric parts, clamp, paper clip, etc.

Yieh Chen multi forming machines are comparable to Japanese or German machines. Our machines have similar quality but more attractive prices. We guarantee our machines can increase the efficiency of productivity and upgrade product quality.

Based on the advanced design concept, this Multi Forming Machine full presents its superior, high speed forming performance. The unit is precision constructed throughout, incorporating with the user friendly computer system, giving the most convenience of operations.



規格 SPC./型號 MODEL	FM-16CNC	FM-30CNC	FM-45CNC
線徑尺寸 Wire O.D.	Ø0.2-1.6mm	Ø 0.6-3.0mm	Ø 1.5-5.0mm
板材寬度 Strip Width	20mm	30mm	40mm (optional: 50mm)
板材厚度 Strip Thickness	0.1-0.9mm	0.3-1.5mm	0.3-2.0mm
材料硬度 Material Hardness	80 carbon	80 carbon	80 carbon
最大送線長度 Max Wire Feeding Length	150mm	200mm	250mm
最大加工速度 Max Processing Speed	Standard 標準 200pcs/min High Speed 高速 300pcs/min	200pcs/min	Standard 標準 150pcs/min High Speed 高速 220pcs/min
沖床能力 Pressing Capacity	5 ton	10 ton	25 ton
沖床行程 Pressing Stroke	10 mm	14 mm	14 mm
滑座能力 Forming Capacity	0.8 ton	1.8 ton	6.5 ton
滑座行程 Forming Stroke	25 mm	37 mm	Single Cam 單凸輪 70 mm Double Cam 雙凸輪 65 mm
滑座配件 Forming Accessory	6 pcs	5pcs	6 pcs
軸數 Number of Axis	1 Axis (Max: 2 Axis)	1 Axis (Max: 3 Axis)	1 Axis (Max: 3 Axis)
送料方式 Feeding Method	夾料 Clamp Feed	夾料 Clamp Feed	夾料 Clamp Feed
機械尺寸 Machine Size	1520*800*1500mm	1850*900*1880mm	2910*1290*2260mm
機械重量 Machine Weight	-	1350kg	2660kg

The designs are subject to modification and improvement without notice by Yieh Chen Machinery Co., Ltd.

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MULTI FORMING MACHINE

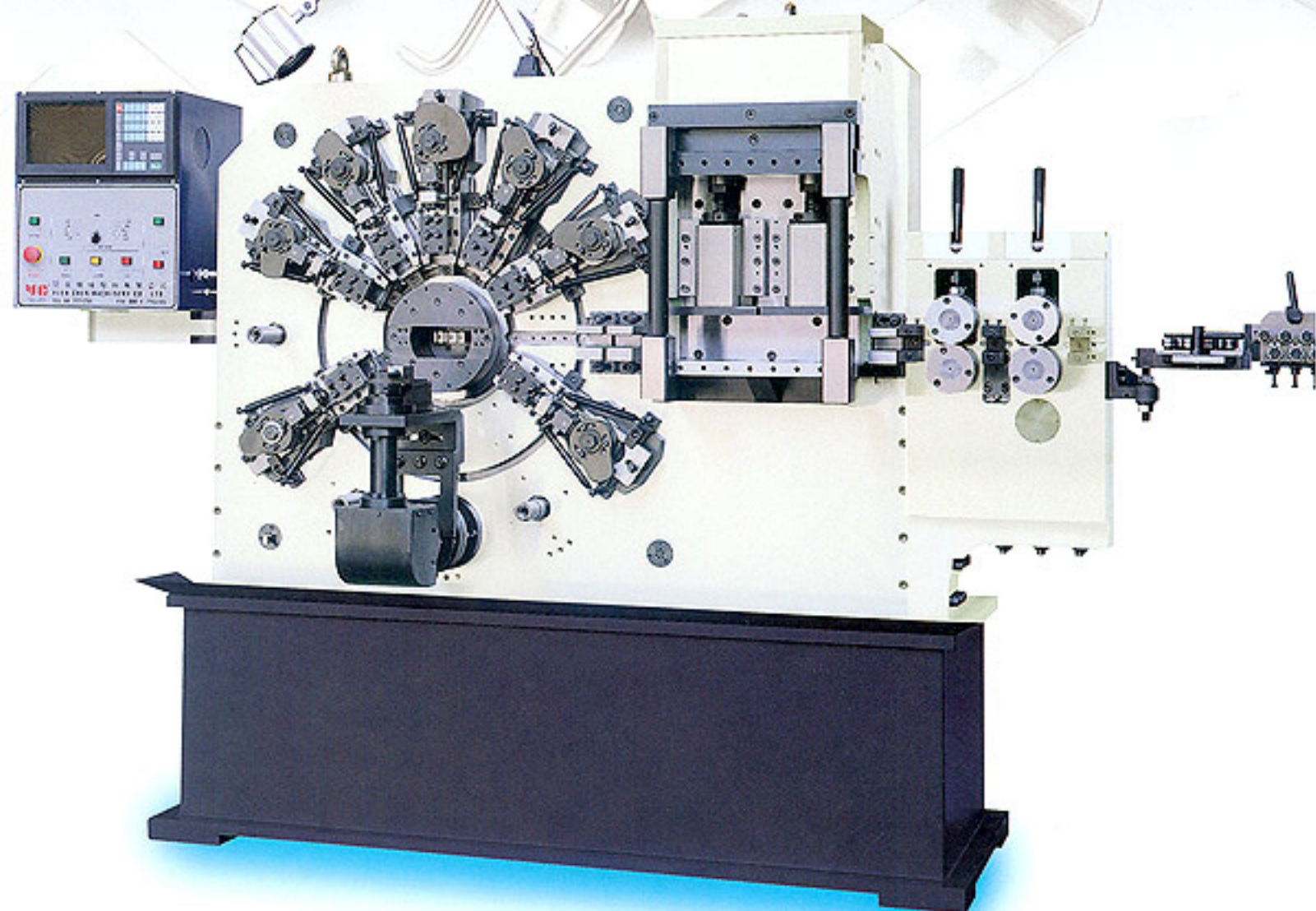
萬能成型機



MULTI WIRE, STRIP, SPRING 萬能線材 · 板材 · 彈

FM-30CNC

FM-20



FEATURES:

FM-30CNC is the 1st digital control multi-forming machine in taiwan, successfully developed by yieh chen machinery. FM-30CNC matches the reality of multi-forming machine as the feeding unit, press unit and forming unit is controlled by high precision servo system further, customer could optional install the servo rotary reel and secondary station to increase machine capacity and flexibility and can be equipped with tapping and welding device for wire or strip materials. The lubrication system can minimize the oil supply and keep material away from stain. The probe, Timer sensor system protects moulds, jigs, material and finish products from mis-feed, breakage.

FM-30CNC could from big size clamp very smoothly, as the range of feeding length is unlimited. FM-30CNC is widely used in producing electronic parts, electrical appliance parts machinery parts, metallic parts and pen clip etc. The press capacity up to 48 tons, which is 4.8 times conventional model such as FM-20 multi-forming machine.

特性

FM-30CNC 為國內首台自行研發成功之數控萬能成型機，本機除送料，沖壓及成形採伺服控制外，尚可加裝伺服控制卷心座，立體加工座，攻牙機，及焊接機，成為名符其實的萬能成型機。本機潤滑系統運用分油器控制潤滑需要以減少油品浪費及工件不必要的沾汙，本機配有紅外線探針配合計時器可用於偵測送料及成品脫模，預防卡料所造成之模治具損壞。

由於送料長度無限，對於加工大尺寸管束可說是得心應手，本機適用範圍包括電子零組件，各式鉤扣，文件夾，各式彈片，髮夾，鋼筆夾等，沖壓能力達48噸，為傳統機型的4.8倍。



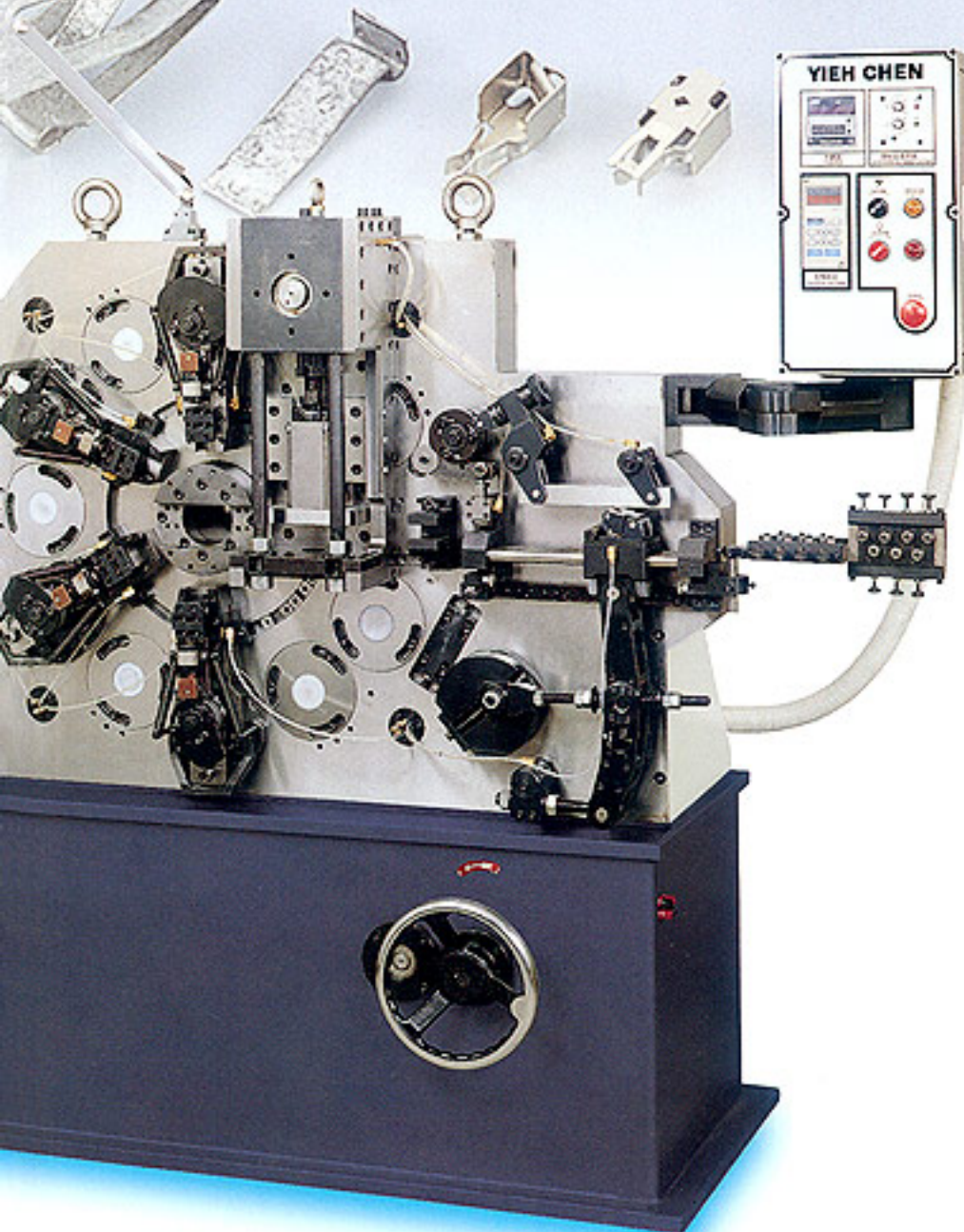
Contin
連續沖



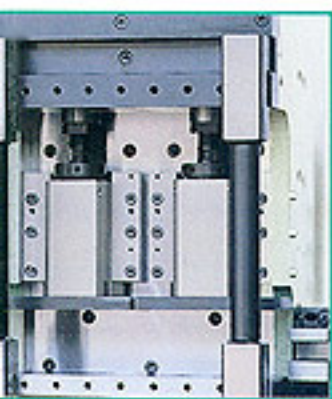
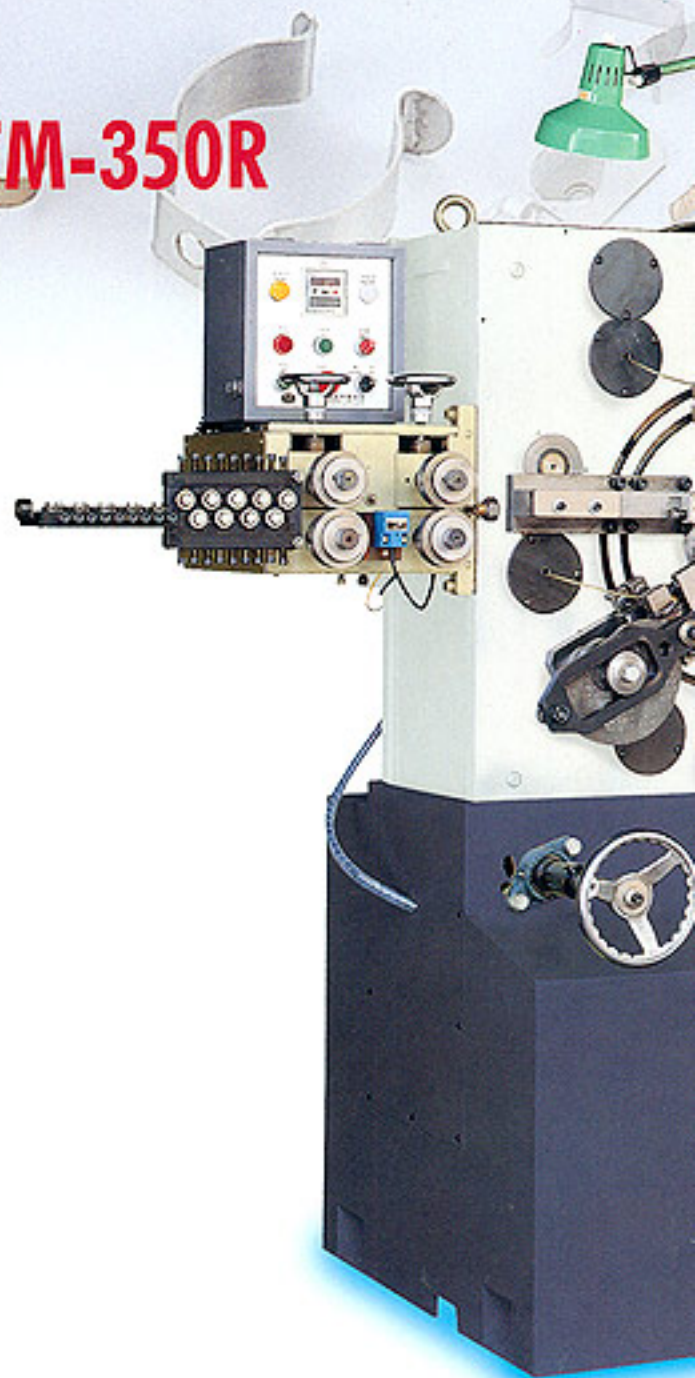
Feeding
送料及

FORMING MACHINE

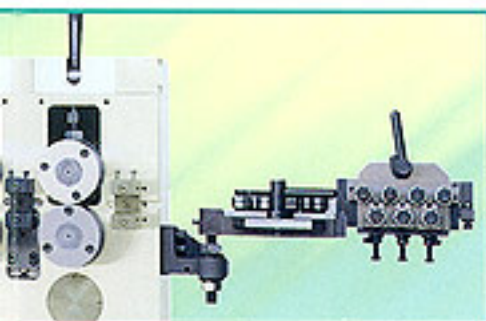
簧成型機



FM-350R



Continuous pressing unit
壓裝置



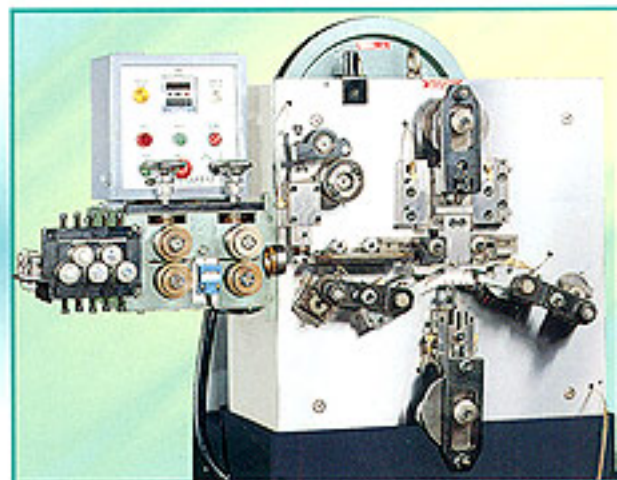
Feeding & straightening unit
直線裝置

FEATURES:

1. Automatic full-circle movement or intermittent movement both available, Which ensures our machine can produce versatile products.
2. When material feeding is jammed, or when material is empty, or when production quality reaches to the presetting quality, electricity power will be cut off automatically that is electronically controled. autolubrication same too.
3. Dual cam assures moulds not be stuck while running.

特性

1. 進退刀全轉式及間歇停頓式，可兩種操作。
2. 擠料、無料，設定數量及自動注油皆由電子控制。
3. 雙凸輪構造上下沖壓，模具絕不會卡住或夾住。



We are the NO.1 specialist in Taiwan in the manufacture of a series of machinery for making hooks, snaps, buckles, shackles, electric parts, spring, clamp, paper clip, oil seal spring and etc. Our machines are comparable to Japanese or German machines, Our machines have similar quality quality but more attractive prices. We guarantee our machines can increase the efficiency of productivity and upgrade product quality.

本公司為台灣最專業之各式鉤子、釦子、鈕扣、手環、電子零組件、彈簧、夾子、迴紋針、油封彈簧...等機械之製造廠。本公司機械品質性能，可媲美德國及日本機器，然而具更低的價位，每一部機器，都將為您大幅提升效率及產能，創造優異的製品品質。

FM-300ET



■ 專用機系列

本公司亦提供專用機設計製造服務及整廠規劃輸出，範圍包括車輛類導線整廠一煞車導線、離合器導線、碼錶線、變速線，PVC鐵線衣架設備等，歡迎洽詢！

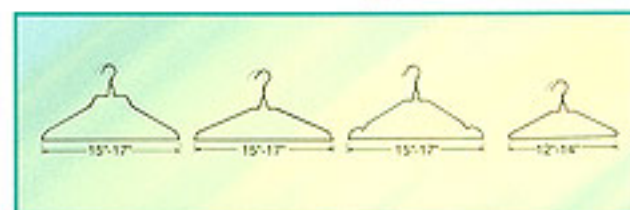
■ SPECIAL PURPOSE Series

Professional machine-high speed, high quality, high effective producing The series combine forming, thread rolling or grinding even complex forming and bending, all in one, example Cloth Hanger Hook, Curtain Hook, Hose Clamp Assembling, Clamp circle forming, etc. We also supply turn key design and export service, example vehicle cable-brake, speedy, meter. Welcome your problems and questions.

FM-300ET 係本公司全新開發專為提高衣架掛鉤生產效能而設計製造之機種。本機結合滾牙、線材成型及圓頭成型為一體，性能優異，依外形不同每分鐘可生產75-120支掛鉤。具有省電、省空間、環保、高效能等多項優點。

■ Model:FM-300ET

Specialize in producing of Clothes Hanger Hook, together with hook forming, head riveting, and thread rolling. The minmum producing speed is 75-90pcs/min. Suitable wire range is 2.5-3.8mm.



MACHINE SPECIFICATIONS

規格SPC.		型號MODEL	FM-250	FM-300	FM-350	FM-450	FM-600	FM-350R	FM-450R
MATERIAL 材 料	STRIP(TxWmm)板								
	WIRE(ϕ mm)線		1.0-3.5	1.2-5.0	1.4-8.0	1.6-10	1.8-12	1.5-3.5	2.5-7.0
FEEDING LENGTH(MAX.mm)			120	250	300	400	600	120	200
OUTPUT 產能PCS/MIN			70-200	50-150	30-70	25-60	20-50	40-120	20-100
MOTOR(HP) 馬達			2	3	3	5	5	5	10
MACHINE SIZE 機械尺寸 mm			1268x950 x1700	1400x950 x1760	1550x1000 x1800	1802x1200 x1880	2200x1200 x2200	1800x1000 x1650	2200x1200 x1800
PACKING SIZE 包裝尺寸 mm			1350x1050 x1800	1500x1050 x1900	1650x1100 x1900	1900x1300 x2000	2300x1300 x2300	1900x1200 x1850	2300x1300 x2000
N.W./G.W 淨重 / 毛重kgs			900/1050	1100/1250	1500/1650	2000/2300	2800/3200	1500/1750	2500/2850

* 以上所有機型規格、形狀如有改變，恕不另行通知。 * All specifications and designs are subject to change without notice.

Optional Accessories:

- 1.Mould and Tooling
- 2.Auto De-coil,60kgs,100kgs, 200kgs, 500kgs,1000kgs
- 3.Forming Unit
- 4.Secondary Making Station (FM-502CNC)
- 5.Rolling Unit (FM-10, FM-20, FM-30CNC)

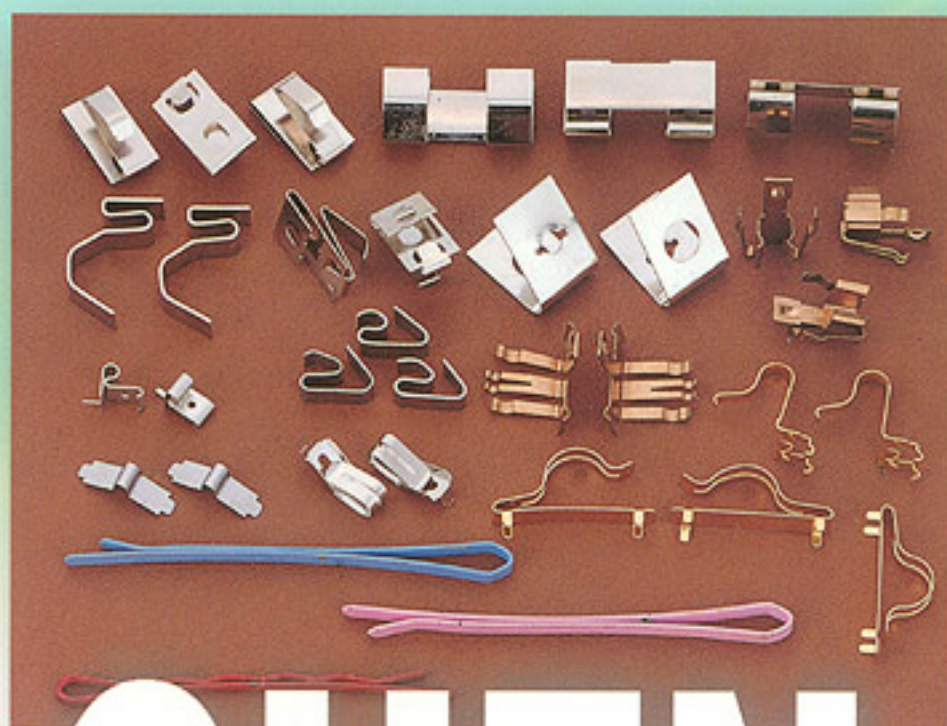
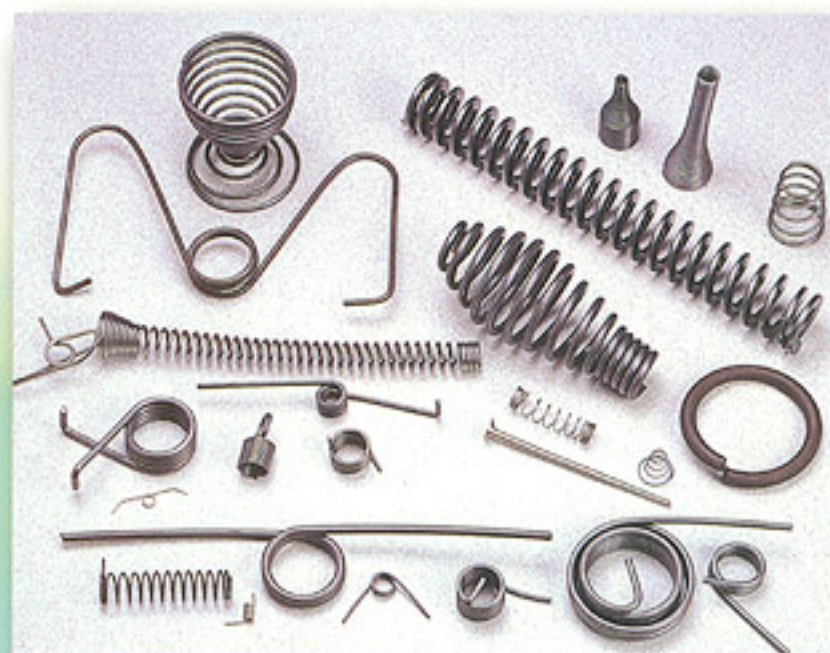
特殊配備：

1. 模具和刀具
- 2.自動送料 60kgs,100kgs, 200kgs, 500kgs,1000kgs
3. 成型座
4. 二次加工座 (FM-502CNC)
5. 滾牙座(FM-10, FM-20, FM-30CNC)

秉持先進理念設計製造的萬能線材、板
材、彈簧成型機，為您展現卓越特出的
性能，全機精密構造搭配高功能電腦系
統，操控極為簡易。

Based on the advanced design
concept, this Multi Forming Machine
Full Presents its superior, high speed
forming performance.

The unit is precision constructed
throughout, incorporating with the
user friendly computer system, giving
the most convenience of operations.



YIEH CHEN



羿 晨 機 械 股 份 有 限 公 司
YIEH CHEN MACHINERY CO., LTD.

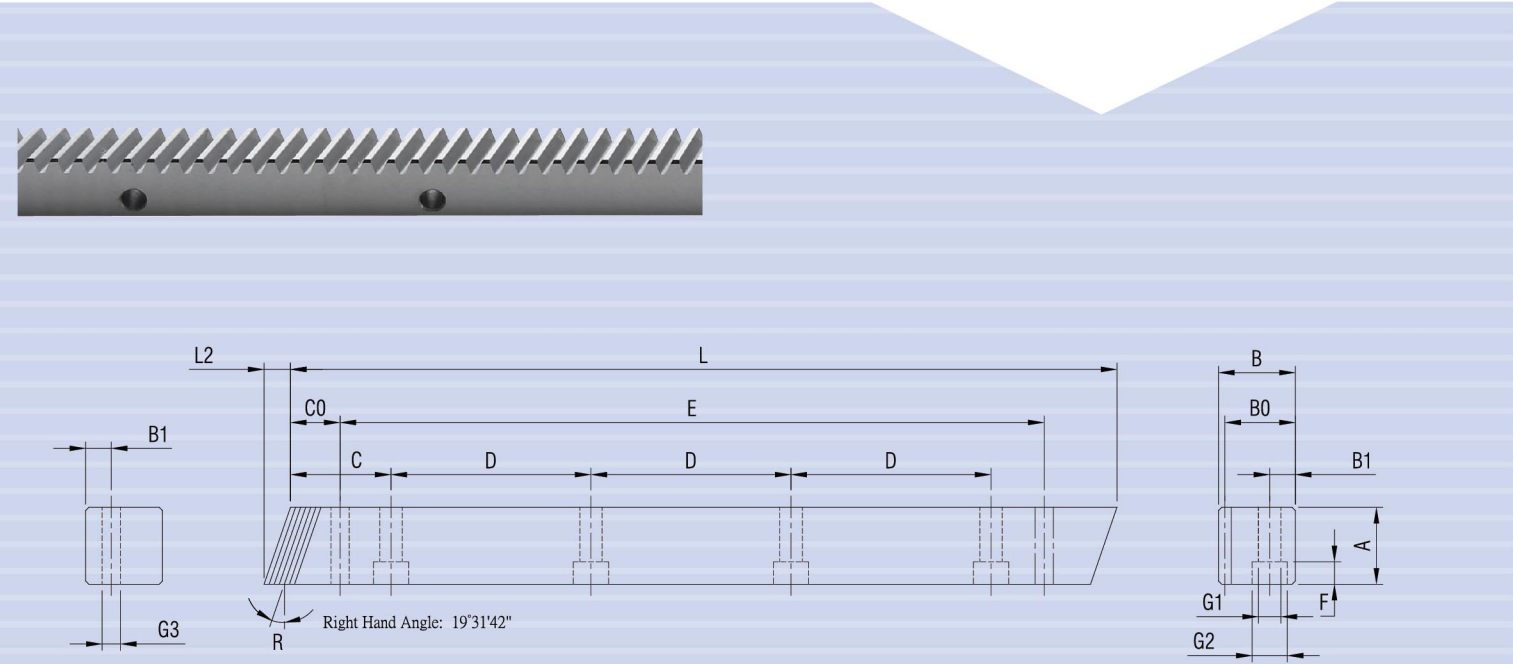
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Helical (Skew) Gear Rack



- Runs quieter than the spur gear rack, especially at high speeds
- Helical rack & pinion has a higher contact ratio (the number of effective teeth engaged) than straight, which increases the load carrying capacity



Dimension:mm

Module	L	L2	Tooth No.	A	B	B0	C	D	Hole No.	B1	G1	G2	F	C0	E	G3
1.5	500.00	6	100	17	17	15.5	62.50	125	4	8	6	9.5	7	31.7	436.6	5.7
1.5	1000.00	6	200	17	17	15.5	62.50	125	8	8	6	9.5	7	31.7	936.6	5.7
2	500.00	8.5	75	24	24	22	62.50	125	4	8	7	11	7	31.7	436.6	5.7
2	1000.0	8.5	150	24	24	22	62.50	125	8	8	7	11	7	31.7	936.6	5.7
3	500.00	10.3	50	29	29	26	62.50	125	4	9	10	15	9	35.0	430.0	7.7
3	1000.0	10.3	100	29	29	26	62.50	125	8	9	10	15	9	35.0	930.0	7.7
4	506.67	13.8	38	39	39	35	62.50	125	4	12	10	15	9	33.3	433.0	7.7
4	1000.0	13.8	75	39	39	35	62.50	125	8	12	10	15	9	33.3	933.4	7.7
5	500.00	17.4	30	49	39	34	62.50	125	4	12	14	20	13	37.5	425.0	11.7
5	1000.0	17.4	60	49	39	34	62.50	125	8	12	14	20	13	37.5	925.0	11.7
6	500.00	20.9	25	59	49	43	62.50	125	4	16	18	26	17	37.5	425.0	15.7
6	1000.0	20.9	50	59	49	43	62.50	125	8	16	18	26	17	37.5	925.0	15.7
8	480.00	28.0	18	79	79	71	60.00	120	4	25	22	33	21	120.0	240.0	17.7
8	960.00	28.0	36	79	79	71	60.00	120	8	25	22	33	21	120.0	720.0	17.7

Material : S45C Grade: JIS 2 (DIN 6, AGMA 12)



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2014/12 © FASHION DESIGN 04-2238796



Precision Spur & Helical Gear Rack

Professionally Fabricated in Taiwan

Sixstar produce, grind and fabricate precision spur gear racks and helical gear racks of all kinds. We can customize racks as accessory to machines and CNC tools of different applications.

Custom drawings are welcomed for our evaluation. Sixstar experienced team is glad to be of your service.

SIX STAR MACHINERY INDUSTRY CO., LTD.
YIEH CHEN MACHINERY CO., LTD.

Capability of Sixstar Gear Rack:

- Grinding precision of JIS grade 2 (DIN 6, AGMA 12)
- Rack teeth rollers are capable of M2-M14 process modulus and can fabricate one single workpiece up to 2 meters without joint.

Sixstar Gear Rack Features:

- Various materials available
- Rectangular or round shape
- With or without heat treatment
- Customization is available
- Manufactured in many lengths and heights
- Ends capable to join with one another



Gear Rack Application:

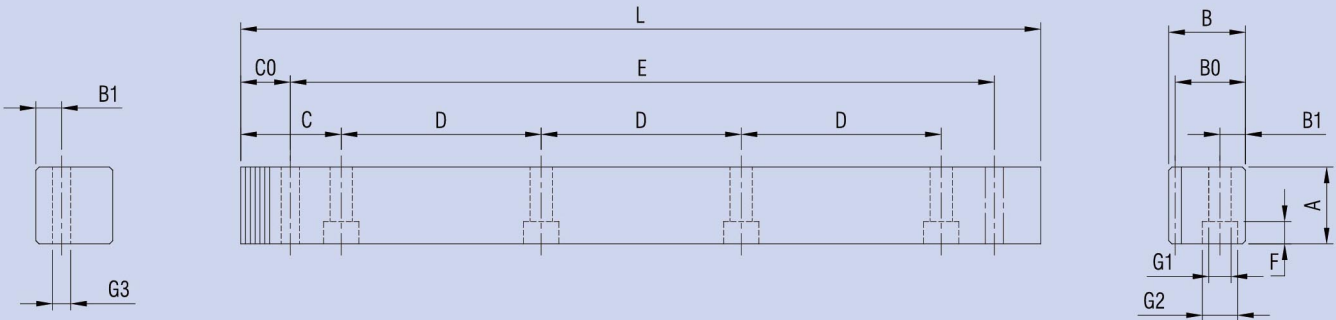
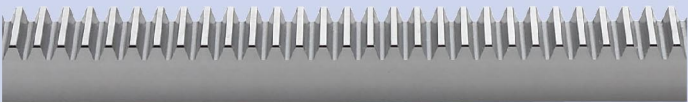
- Machine tools, milling machines, drills, lathes, machine center, cutting machines, carpentry machines, welding machines, stone fabricating machines, etc.
- Lift mechanisms/ Guide mechanisms/ Steering mechanisms, etc.
- Ideal for working with heavy duty loads and motion

Precision Spur & Helical Gear Rack

Spur (Straight) Gear Rack



- Spur gear racks have the teeth perpendicular to rack length
- Converts rotary motion into linear motion to carry heavy loads



Dimension:mm

Module	L	Tooth No.	A	B	B0	C	D	Hole No.	B1	G1	G2	F	C0	E	G3
1.5	499.51	106	17	17	15.5	62.44	124.88	4	8	6	9.5	7	29.0	441.5	5.7
1.5	999.03	212	17	17	15.5	62.44	124.88	8	8	6	9.5	7	29.0	941.0	5.7
2	502.64	80	24	24	22	62.83	125.66	4	8	7	11	7	31.3	440.1	5.7
2	1005.28	160	24	24	22	62.83	125.66	8	8	7	11	7	31.3	942.7	5.7
3	508.95	54	29	29	26	63.62	127.23	4	9	10	15	9	34.4	440.1	7.7
3	1017.9	108	29	29	26	63.62	127.23	8	9	10	15	9	34.4	949.1	7.7
4	502.64	40	39	39	35	62.83	125.66	4	12	10	15	9	37.5	427.7	7.7
4	1005.28	80	39	39	35	62.83	125.66	8	12	10	15	9	37.5	930.3	7.7
5	502.65	32	49	39	34	62.83	125.66	4	12	14	20	13	30.1	442.4	11.7
5	1005.31	64	49	39	34	62.83	125.66	8	12	14	20	13	30.1	945	11.7
6	508.95	27	59	49	43	63.62	127.23	4	16	18	26	17	31.4	446.1	15.7
6	1017.9	54	59	49	43	63.62	127.23	8	16	18	26	17	31.4	955.0	15.7
8	502.64	20	79	79	71	62.83	125.66	4	25	22	33	21	26.6	449.5	19.7
8	1005.28	40	79	79	71	62.83	125.66	8	25	22	33	21	26.6	952	19.7

Material : S45C Grade: JIS 2 (DIN 6, AGMA 12)





YC-800 / 1225

SPLINE ROLLING MACHINE

冷作滾造成型機

A new machine for cold-forming of splines, serrations, oil grooves, and precision threads.



昇晨機械股份有限公司
YIEH CHEN MACHINERY CO.,LTD

冷作滾造成型機 SPLINE ROLLING MACHINE

YC-80

經過多年研究開發，六星集團昇晨機械公司推出全新加工理念的冷作滾造成型機，是加工精密汽車，機車，農機，堆高機，氣壓，油壓及各類五金工具零件的最佳利器。無論是螺旋齒輪，正齒輪，栓槽、油溝槽，蝸桿，滾花及螺紋等皆可精密快速滾製。

這台特殊設計的冷作滾造成型機，具有獨特的高速加工特性，比傳統機械切削的加工在速度上快近30倍，且在齒形，導程，節距表面精度上均可達到高精度的要求，而且可確保工件材質上均勻性，若成型刀在640mm之間可確保測量量稍徑，跨齒厚均在0.015mm之內。

冷作滾造成型機具備有快速換刀設計，如工件材料均勻穩定，齒刀壽命大約加工可達100,000~200,000件，且YC-1225機種可同時夾持兩組齒刀在一個行程內可完成兩個部份以上的高效率加工，大幅提高齒條產能，完全符合本集團“給組織活力，給制度生命，給公司成長，給客戶滿意”的宗旨。

YIEH CHEN Machinery of "SIX STAR GROUP" presents this all new Spline Rolling Machine. The Spline rolling process is inherently accurate, with surface finishes of 3 to 6 micro-inches obtainable. Spline Rolling is best suited for long production runs or intermittent runs of a variety of parts. It's the fastest and most economical method of producing involute toothed forms.

Many different types of splines, serrations, oil grooves, worm gears, screws, knurls, threads and similar forms can be rolled in individually or in combination in just 3 to 7 seconds.

This process will generate excellent surface finishes, increase shear strength due to grain flow, and reduce material requirements due to "Chipless forming and achieve excellent mass-productivity. Forming racks is easily to change and conveniently accomplished.

It meets our group policy as "Give organization vitality, Give system life, Give company development and Give customers satisfaction."

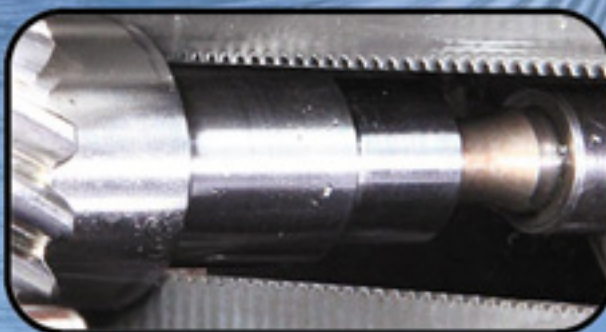
加工精密汽車、機車、農機、堆高機、氣壓、油壓、及各類五金工具零件的最佳利器。螺旋齒輪，正齒輪，栓槽、油溝槽，蝸桿，滾花及螺紋等皆可精密快速滾製。

Special for precision parts of vehicle, motorcycle, agricultural machine, filter, pneumatic, hydraulic & various hardware tools, etc. Splines, Serrations, Oil grooves, Worm gears, Screws, Knurls, Threads and similar forms. "Chipless forming to achieve excellent mass-productivity.



MACHINE

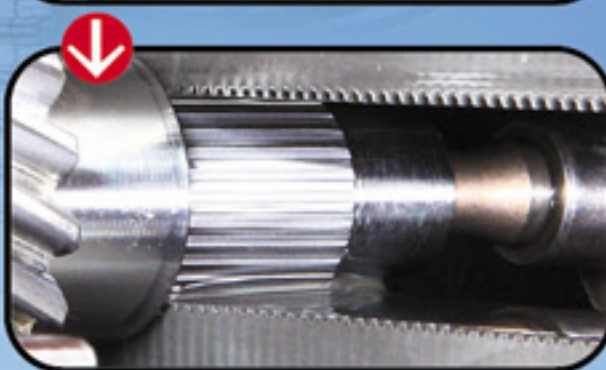
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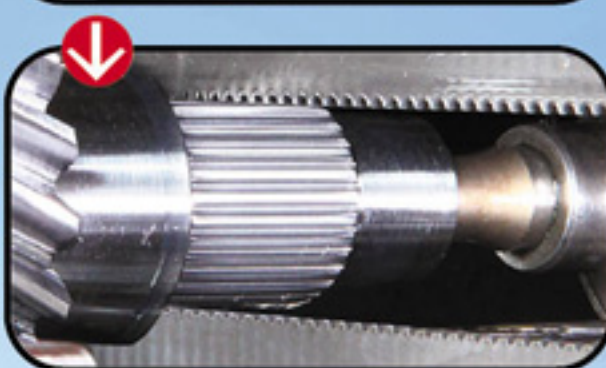
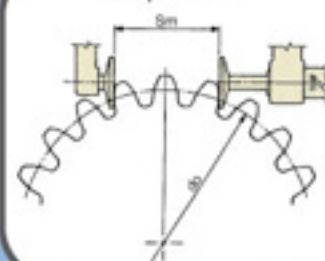
• Tooth Profile Inspection



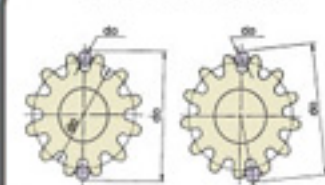
• Lead Inspection



• Span Value



• Over Pins Diameter



項目 ITEM	型式 MODEL	YC-800	YC-1225
最小栓槽軸直徑 Min. component diameter	mm	16 (0.63")	16 (0.63")
最大栓槽軸直徑 Max. spline diameter	mm	40 (1.57")	50 (1.97")
最大栓槽軸長度 Max. spline length	mm	110 (4.33")	110 (4.33")
最小工作長度 Minimum component length	mm	100 (3.94")	100 (3.94")
最大工作長度 Maximum component length	mm	1000 (39.37")	1200 (47.24")
最大栓槽軸模數 Max. spline module		1.25	1.5
標準齒刀 Standard length of spline forming rack		640mm (24")	915mm (36") (Option 1220mm, 48")
標準牙刀 Standard length of thread forming rack		360mm (14.17")	360mm (14.17")
油壓馬達 Hydraulic motor		40HP(6P)	50HP(6P)
冷凍機 Cooler pump		5HP	5HP
控制器 PLC control Ssystem		Mitsubishi	Mitsubishi
佔地面積 Floor space (LxWxH)	mm	2700x4200x2100	3700x4200x2100
裝箱材積 Packing measurement (LxWxH)	mm	4000x5000x3000	5000x5000x3000
機械淨重 Net weight	Kgs	12,000 kgs	15,000
裝箱毛重 Gross weight	Kgs	12,500 kgs	15,600

▲本公司不斷進行研究改善工作，因此本型錄內所有的尺寸設計與特性如有變更，恕不另行通知。

▲We reserve the right to change design, color or specification without notice.

Spline Rolling Machine

冷作滾造成型機

標準附件：

- 1.機械安全裝置
- 2.工件定位裝置
- 3.潤滑裝置
- 4.冷卻裝置
- 5.電器控制裝置
- 6.作業工具及工具箱
- 7.操作維護說明書

Standard Accessories:

- 1.Machine Safety Device
- 2.Parts Setter
- 3.Lubrication System
- 4.Cooling System
- 5.Electrical Control Unit
- 6.Tooling & Tool Box
- 7.Operation & Maintain Manual

特殊附件：

- 1.各型齒刀
- 2.自動裝填裝置
- 3.特殊中心頂針
- 4.接受特殊訂製

Optional Accessories:

- 1.Various Forming Racks
- 2.Auto Loading System
- 3.Special Center
- 4.Customer-made acceptable



Forming racks



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<http://www.yiehchen.com>
 E-mail:THR <yiehchen@ms59.hinet.net>



YOUR **THREAD ROLLING** **AND SPLINE ROLLING** SOLUTION



Yieh Chen Machinery was established in 1984 into the market of machinery industry and is dedicated to provide Thread Rolling Machine and Spline Rolling Machine with high quality, durable lifetime and attentive service.

CHIPLESS DURABLE EFFICIENT



羿晨機械股份有限公司
Yieh Chen Machinery Co., Ltd

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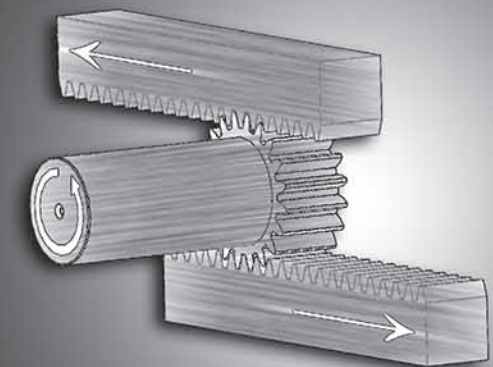
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羿晨機械股份有限公司
YIEH CHEN MACHINERY CO., LTD.

Yieh Chen Thread Rolling machine series are remarkable in terms of workpiece quality requirement, easy to operate & maintain, and durability of machine lifetime. The possibility of connection to an automatic system and output is another brilliant design for customers who have special needs.

The general characteristics of all machines series are:

- A very rigid iron cast frame or modifiable steel plate machine bed.
- Hydraulic type and Cam-Driven rolling type force.
- Rolling force from 4 tons to 100 tons.
- Plunge (in-feed) and through-feed rolling.
- Two and three cylindrical die rolling for various material type (bar, rod and tube).
- Easy to operate, changeover, and maintain.

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Thread Rolling Machine Series

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COMPANY PROFILE . . .

Gear Specialized

Yieh Chen Machinery Co., Ltd is the affiliate of Six Star Group. Six Star was founded in 1975 by Six brothers and devoted to the manufacturing of precision gear products. Throughout these years, Six Star has become one of the Top Five gear manufacturers in Taiwan. With a focus on precision gears and gearboxes, Six Star offers a broad range of industries, including machine tools, aerospace, agriculture machinery, robotic arms, transmission, hydraulic pumps and industrial machines.

Machine Manufacturer

Based on Six Star's professional and rich experience of manufacturing various precise gears, Yieh Chen Machinery was established in 1984 into the market of machinery industry and is dedicated to produce Thread rolling machine and Spline rolling machine with high quality and durable lifetime.

We offer customer rigid machine with function of precision, durable, simple operation, easy maintenance and competitive price. Moreover, we design fully automation production lines for thread rolling machine, wire forming machine, special purpose machine, entire automation production lines are all in our service areas in order to provide total solution for customers.

Yieh Chen is never slackening off on pursuing the best in the global market. Hence, we wish to achieve higher customer satisfaction and build closer relationship with customers by advancing our quality level.



- CE certificate of YC Thread Rolling Machine series

Heavy Duty Hydraulic Thread Rolling Machine

- The machine frame is fabricated from steel plate, tempered for deformation free performance.
- The hydraulic feed pressure is adjustable to satisfy all applications.
- On some models in-feed rolling cycle times are controlled by adjustable rolling and dwell timer switches. This facilitates the rolling of fine and coarse forms with a simple adjustment.
- Available on request are semi and fully automatic loading systems, foot activated control switches and electrical back stops.
- Oversized coolant tank allows for superior cooling effect. (optional)
- Gear box oil tank ensures maximum stability of oil temperature with recirculating pump.
- Extended universal joint provides smooth operation for big angle of workpiece.
- Powerful spindle motor meets the requirement of demanding product.
- Allen Bradley starters are available (USA market only).



YC-530PS

YC-530PSH

YC-750P

MAIN SPECIFICATION				YC-530PS(H)		YC-750P	
Rolling Size 可加工外徑	Min. O.D.	最小外徑		Ø 6 mm	1/4"	Ø 25 mm	1"
	Max. O.D.	最大外徑		Ø 80 mm	3-1/8"	Ø 100 mm	4"
	Max. Length	牙長		In feed and through feed both available			
Max. Pitch		可加工最大節距		8 mm	3 TPI	10 mm	2.5 TPI
Roll Dies 牙輪	Rolling Speed	轉速		56, 90, 136, 193 rpm		15, 23, 36, 52 rpm	
	Max. Outside Diameter	最大外徑		200 mm		200 mm	
	Inside Diameter	內徑		70 mm		70 mm	
	Max. Width	寬度		150 mm		150 mm	
Max. Center Distance of Die-spindle 牙輪中心最大距離				250 mm		250 mm	
Min. Center Distance of Die-spindle 牙輪中心最小距離				145 mm		145 mm	
Max. Rolling Force 最大滾製壓力				35 TON		55 TON	
Motor 馬達	Rolling Spindle	主軸		15HP (20HP optional)		25HP	
	Hydraulic Pump	油壓		5HP		10HP	
	Coolant Pump	冷卻		1/6HP		1/6HP	
	Gear Box Pump	齒輪箱冷卻		1/8HP		1/8HP	
N.W.		淨重		3000 kg		3300 kg	
G.W.		毛重		3460 kg		3860 kg	
Floor Space 佔地面積				2000 x 1560 mm		1650 x 2320 mm	
Packing Dimension (L x W x H) 包裝尺寸				2200 x 1720 x 1890 mm		2520 x 1810 x 2070 mm	

The designs are subject to modification and improvement without notice.

Heavy Duty Hydraulic Thread Rolling Machine



YC-860P

YC-970P

- The heaviest YC thread rolling machine with more than 100 tons rolling pressure.
- Squared slide processed by precise grinding is designed for large workpiece and make the thread rolling quality stable.
- Powerful spindle motor can meet the requirement of bigger material and heavy duty rolling.
- Bigger coolant tank and pump motor make the cooling effect better.
- The innovative machine with PLC control and frequency converter which makes the rolling speed adjustable. (optional)
- Spindle diameter can be revised according to your particular request.
- Allen Bradley starters are available (USA market only).



MAIN SPECIFICATION				YC-860P		YC-970P	
Rolling Size 可加工外徑	Min. O.D.	最小外徑		Ø 25 mm	1"	Ø 25 mm	1"
	Max. O.D.	最大外徑		Ø 120 mm	4-3/4"	Ø 140 mm	5-1/2"
	Max. Length	牙長		In feed and through feed both available			
Max. Pitch		可加工最大節距		2~12 mm	2 TPI	3~16 mm	8-1.5 TPI
Roll Dies 牙輪	Rolling Speed	轉速		20~60 rpm		20~60 rpm	
	Max. Outside Diameter	最大外徑		240 mm		300 mm	
	Inside Diameter	內徑		80 mm		100 mm	
	Max. Width	寬度		220 mm		260 mm	
Max. Center Distance of Die-spindle 牙輪中心最大距離				340 mm		400 mm	
Min. Center Distance of Die-spindle 牙輪中心最小距離				230 mm		230 mm	
Max. Rolling Force 最大滾製壓力				70 TON		100 TON	
Motor 馬達	Rolling Spindle	主軸		30 HP		40 HP (50 HP optional)	
	Hydraulic Pump	油壓		10 HP		15 HP (20 HP optional)	
	Coolant Pump	冷卻		1/2 HP		1/2 HP	
	Gear Box Pump	齒輪箱冷卻		1/4 HP		1/4 HP	
N.W.		淨重		5600 kg		12000 kg	
G.W.		毛重		6200 kg		12200 kg	
Floor Space 佔地面積				2350 x 2100 mm		2600 x 2100 mm	
Packing Dimension (L x W x H) 包裝尺寸				2600 x 2400 x 2550 mm		2800 x 2250 x 2550 mm	

The designs are subject to modification and improvement without notice.

- The slide travel and feed rate are adjustable.
- The hydraulic feed pressure is also adjustable from 0.5 tons to 30 tons to satisfy all applications.
- On some models in-feed rolling cycle times are controlled by adjustable rolling and dwell timer switches. This facilitates the rolling of fine and coarse forms with a simple adjustment.
- Available on request are semi and fully automatic loading systems, foot activated control switches and electrical back stops.
- Especially suitable for producing long screw threads (E.G. acme lead and ball screws) and precision threaded, splined, worm and serrated components for machinery, hardware, tools, motorcycles, construction, automobiles, etc.
- Allen Bradley starters are available (USA market only).



YC-310

MAIN SPECIFICATION		YC-310		YC-420		YC-530	
Workpiece Range 工件	Outside Diameter 外徑	2 - 16 mm	1/16" - 5/8"	6 - 35mm	1/4" ~ 1-3/8"	6 - 60mm	1/4" ~ 2-3/8"
	Thread Pitch 牙距	0.4 - 2.0P	60 - 11 TPI	0.75 - 4.0P	40 - 6TPI	0.75 - 6.0P	40 - 4TPI
Roll Dies 牙輪	Max. Length 牙長	In feed and through feed both available					
	Rolling Speed 轉速	54 rpm		24, 38, 52, 78 rpm		15, 23, 36, 52 rpm	
	Max. Outside Diameter 最大外徑	100 mm		150 mm		180 mm	
	Inside Diameter 內徑	50.5 mm		54 mm		54 mm	
Max. Center Distance of Die-spindle 牙輪中心最大距離	Max. Width 寬度	30 - 40 mm		100 mm		150 mm	
	Min. Center Distance of Die-spindle 牙輪中心最小距離	120 mm		170 mm		220 mm	
Rolling Force (Max.) 最大滾製壓力	Output (Meter/Min.) REF. 參考滾製速度 (米/分鐘)	90 mm		120 mm		145 mm	
	For Spindle 主軸	4 TON		17 TON		35 TON	
Motor 3Ph A.C. 馬達	For HYD. Pump 油壓泵	1.2		1.5		1.8	
	For Coolant Pump 冷卻泵	2HP		7.5HP		10HP	
	Floor Space 佔地面積	2HP		3HP		5HP	
Machine Body 機體	For Coolant Pump 冷卻泵	1/8HP		1/8HP		1/8HP	
	Net Weight (Approx.) 淨重	1400 x 940 mm		1800 x 1350 mm		2000 x 1560 mm	
	Gross Weight (Approx.) 毛重	480 kg		1650kg		2700kg	
	Shipping Measurement (L x W x H)	650 kg		2000kg		3160kg	
		1575 x 1030 x 910 mm		2030 x 1490 x 1510 mm		2200 x 1720 x 1700 mm	

The designs are subject to modification and improvement without notice.



**YC-420
YC-530**

YC-530P

- YC-530P is the basic model in Yieh Chen for producing square thread and scaffolding parts (e.g. Tie rod and Props) by its solid structure and powerful feature.
- Extra small rolling dies for rolling scaffolding props thread, providing much better performance than normal 3 rolling die structure.



EXCLUSIVE DESIGN
for Scaffolding Props Threading



MAIN SPECIFICATION		YC-530P	
Workpiece Range 工件	Outside Diameter 外徑	6 - 80mm	1/4" ~ 3-1/8"
	Thread Pitch 牙距	0.75 - 8P	40 - 3TPI
Roll Dies 牙輪	Max. Length 牙長	In feed and through feed both available	
	Rolling Speed 轉速	15, 23, 36, 52 rpm	
	Max. Outside Diameter 最大外徑	200 mm	
	Inside Diameter 內徑	70 mm	
Max. Center Distance of Die-spindle 牙輪中心最大距離	Max. Width 寬度	150 mm	
	Min. Center Distance of Die-spindle 牙輪中心最小距離	250 mm	
Rolling Force (Max.) 最大滾製壓力	Output (Meter/Min.) REF. 參考滾製速度 (米/分鐘)	145 mm	
	For Spindle 主軸	35 TON	
Motor 3Ph A.C. 馬達	For HYD. Pump 油壓泵	0.5~2	
	For Coolant Pump 冷卻泵	15HP	
	Floor Space 佔地面積	5HP	
Machine Body 機體	For Coolant Pump 冷卻泵	1/8HP	
	Net Weight (Approx.) 淨重	2000 x 1560 mm	
	Gross Weight (Approx.) 毛重	2800kg	
	Shipping Measurement (L x W x H)	3300kg	
		2200 x 1720 x 1700 mm	

The designs are subject to modification and improvement without notice.



Fully Automatic Thread Rolling Series

The Quality Thread Rolling Machine with Automatic Bar Feeder or Feeding System

- Yieh Chen provides customized service of design Auto-Feeding system for a wide variety of workpiece. Long as 1M to 12M rod material; short as 10mm item, there is no problem for us to design a fully automatic feeding and un-loading system.
- Based on customer's specific requirements, R&D team is capable to develop the unique device for high speed, fully automatic production of a wide variety of threads, such as single thread, double thread, triple thread, UNC, UNF, etc.
- Yieh Chen thread rolling machine is heavily constructed for high stability. Extremely powerful spindle motor allows high speed thread rolling with ease. The combination of thread rolling machine and auto-feeding system provides great saving of labor cost, upgrades productivity, and a necessity for competitive edge.



The designs are subject to modification and improvement without notice.



YC-30A

W/VIBRATION BOWL FEEDER



YC-530

W/HOPPER FEEDER



YC-420

W/MAGAZINE FEEDER



YC-530S

W/AUTOMATIC BAR LOAD AND UN-LOAD SYSTEM



YC-TM3/4

W/CONVEYER FEEDER

Hydraulic 3 Roll Tube Rolling Machine

Cam Driven Thread Rolling Machine

YC-30A

- Incorporates hydraulic operation and can be applied to through and infeed rolling up to 32mm diameter components.



YC-60A

YC-60AP

YC-120A

- Incorporates hydraulic operation for mass production of many types of thread forms on hollow sections for oil pipe connectors, electric fan shafts, automobile and motorcycle parts, jacks and props, cycle hubs, closures, etc.



YC-3T

- Incorporating eccentric cam feed, smart and simple design and ease of operation for producing fine quality small screws for sewing machines, bicycles, automobiles, motorcycles, hardware, tools and precision machinery.



YC-20/YC-30

- Incorporating gear speed reduction and cam operated rolling slide for convenient and precise production of a large range of threaded parts. These machines are equipped with lubricating systems to increase the durability of the slides.



MAIN SPECIFICATION		YC-30A		YC-60A		YC-60AP		YC-120A	
Workpiece Range 工件	Outside Diameter(blank) 素材外徑	8 - 30 mm	5/16" - 1-1/8"	15 - 60mm	5/8" ~ 2-1/4"	15 - 75mm	5/8" ~ 3"	30 - 120 mm	1-1/8" ~ 4-3/4"
	Thread Pitch 牙距	0.5 - 2.5P	40 - 11 TPI	0.75 - 3.0P	40 - 8 TPI	0.75 - 6.0P	40 - 4 TPI	0.75 - 3.0P	40 - 8 TPI
Roll Dies 滾牙輪	Max. Length 牙長			In feed and through feed both available					
	Rolling Speed 轉速	250 rpm		46, 65, 85, 120 rpm		46, 65, 85, 120 rpm		82, 131, 196, 278 rpm	
	Max. Outside Diameter 最大外徑	80 mm		140 mm		140 mm		140 mm	
	Inside Diameter 內徑	25.4 mm		40 mm		40 mm		40 mm	
Max. Center Distance of Die-spindle 牙輪中心最大距離	Max. Width 寬度	20, 30, 40 mm		50 mm		50 mm		50 mm	
	Min. Center Distance of Die-spindle 牙輪中心最小距離	130 mm		210 mm		210 mm		270 mm	
Rolling Force (Max.) 最大滾製壓力	Output (Pcs/Min.) 滾製速度 (數量/分鐘)	50 mm		75 mm		75 mm		105 mm	
		4 TON		18 TON		18 TON		19 TON	
Motor 3Ph A.C. 馬達	For Spindle 主軸	9 - 35		9 - 35		Quote by sample		Quote by sample	
	For HYD. Pump 油壓泵	2HP		5HP		7.5HP		7-1/2HP	
	For Coolant Pump 冷卻泵	2HP		3HP		3HP		3HP	
	Floor Space 佔地面積	1/8HP		1/8HP		1/8HP		1/8HP	
Machine Body 機體	Net Weight (Approx.) 淨重	1120 x 930 mm		1360 x 1250 mm		1360 x 1250 mm		1360 x 1280 mm	
	Gross Weight (Approx.) 毛重	550 kg		1150kg		1200kg		1300kg	
	Shipping Measurement (L x W x H) 包裝尺寸 (長 x 寬 x 高)	720 kg		1380kg		1400kg		1500kg	
		1320 x 1130 x 1570 mm		1560 x 1450 x 1650 mm		1560 x 1450 x 1650 mm		1560 x 1450 x 1650 mm	

The designs are subject to modification and improvement without notice.

MAIN SPECIFICATION		YC-3T		YC-20		YC-30	
Workpiece Range 工件	Outside Diameter 外徑	0.8 - 12.5 mm	1/32" - 1/2"	5 - 22 mm	3/16" - 7/8"	5 - 40 mm	5/16" - 1-9/16"
	Thread Pitch 牙距	0.4 - 1.5P	60 - 16 TPI	0.75 - 2.5P	40 - 9 TPI	0.75 - 3.0P	40 - 8 TPI
Roll Dies 滾牙輪	Max. Length 牙長	30 (40) mm	1-1/8" (1-9/16")	48 mm	1-7/8"	150 mm	6"
	Rolling Speed 轉速		40 rpm		40 rpm		40 rpm
	Max. Outside Diameter 最大外徑		100 mm		120 mm		150 mm
	Inside Diameter 內徑		50.5 mm		40 mm		54 mm
Max. Center Distance of Die-spindle 牙輪中心最大距離	Max. Width 寬度		30 (40) mm		50 mm		150 mm
	Min. Center Distance of Die-spindle 牙輪中心最小距離		130 mm		140 mm		187 mm
Output (Pcs/Min.) 滾製速度 (數量/分鐘)	For Spindle 主軸		90 mm		100 mm		140 mm
	Motor 3Ph A.C. 馬達		20 - 40		9 - 30		7 - 20
Machine Body 機體	For Coolant Pump 冷卻泵		1HP		3HP		7-1/2HP
	Floor Space 佔地面積		1/8HP		1/8HP		1/8HP
	Net Weight (Approx.) 淨重		800 x 600 mm		1090 x 740 mm		1220 x 810 mm
	Gross Weight (Approx.) 毛重		300 kg		970 kg		1300 kg
Shipping Measurement (L x W x H) 包裝尺寸 (長 x 寬 x 高)			395 kg		1130 kg		1480 kg
			940 x 700 x 910 mm		1240 x 850 x 1220 mm		1365 x 925 x 1295 mm

The designs are subject to modification and improvement without notice.



Standard Thread Rolling Dies:

- Single-Thread
- 60° V-Type Teeth, Pitch 0.5 - 5.0mm
- 55° V-Type Teeth, 40TPI - 5TPI
- 90° Knurling Thread, and 40TPI - 18TPI
- Parallel Thread

Special Thread Rolling Dies:

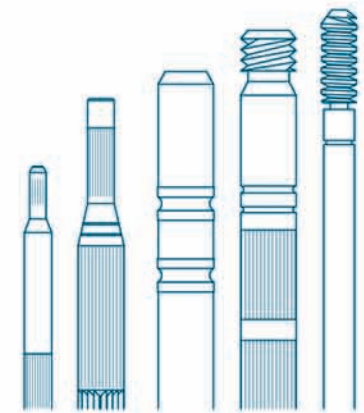
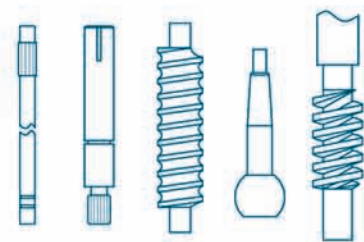
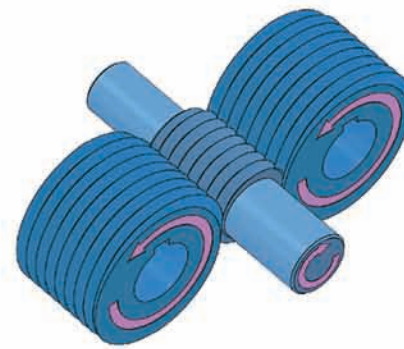
- Over than Single-Thread
- 60° V-Type Teeth, Pitch Out of 0.5mm - 5.0mm
- 55° V-Type Teeth, Out of 40TPI-5TPI
- 90° Knurling Thread and metric size pitch
- Spline
- Worm Thread, ACME Thread, Buttress, Cycle Thread, Bottle Closure Thread, and..etc.
- Taper thread
- For rolling special material, Ex. SUS, Alloy Steel and hardness over than RC20

How to Order Thread Rolling Dies:

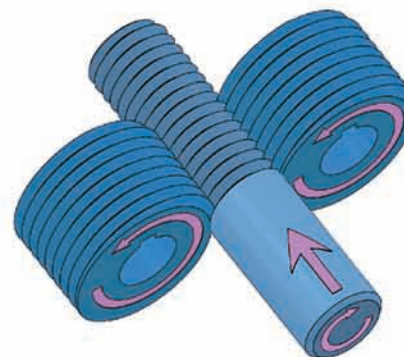
Please Offer Below Data:

- Machine Model or Rolling Die dimension (O.D., I.D., Keyway)
- Shape of Workpiece (Thread Length, thread Profile, Pitch or Thread per Inch, Thread Major Dia., Pitch dia., Material).
- Please specify through or in-feed rolling.

Infeed Rolling (Plunge Type):

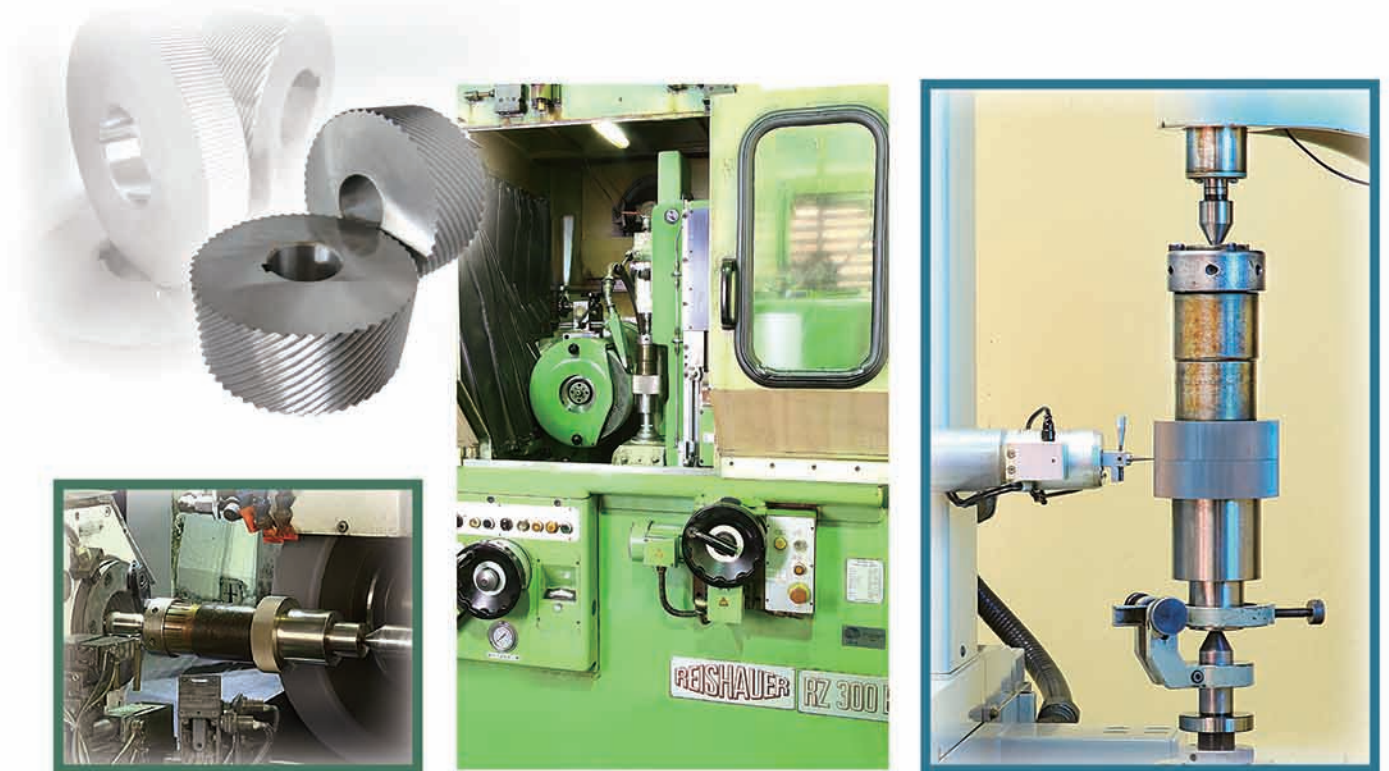


Through Feed Rolling:



Any Kind of Thread can be made such as UNC, UNF, BSW, Metric, ACME, Ball Screw, even Tube Thread.

Professional Fabrication of Thread Rolling Dies



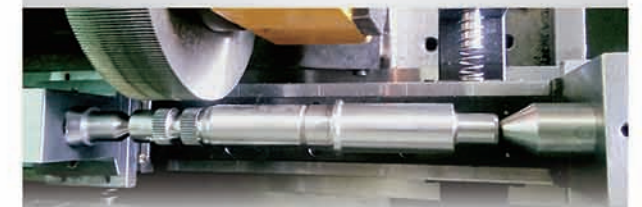
Adjustable Work Rest Seat



Work Piece Centering Device



Work Rest Blade



The centering device can help stabilize the work piece especially when rolling splines with high precision requirement.

Linear Scale



Codeout Unit



By the data shown on digital displayer, user can easily know the position of hydraulic slide and adjust to desired position swiftly. The internal memory function of Liner encoder can record the roller location for easy roller replacement and adjusting.

Monitoring System (for on-line inspection)



Touch Screen



Magnetic Iron Scrap Separator



Frequency Converter



Cooling System



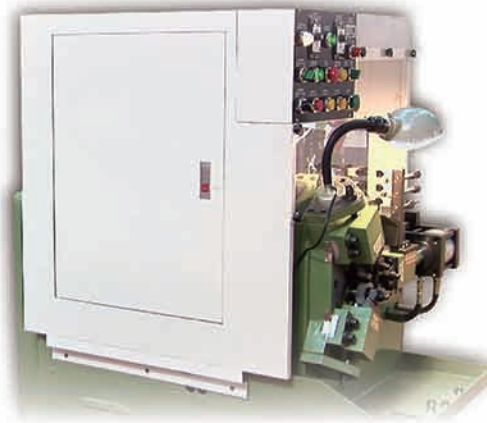
Oil Cooling System



Safety Cover (CE)



Safety Cover and Working Area Light



Spiral Tube Forming Machine

YC-201

- It can machine a series of thin metal tubes (spiral forming) which is widely used for heat exchange and cooling.
- We can design the machine according to your request of full range specifications.

The designs are subject to modification and improvement without notice.



Thread Cutting Machine

YC-425

- Cutting the thread with high precision and good stability.
- It's easy to get the disposable cutter and not necessary to change the whole mold to save the cost.
- It can machine the material with high hardness.
- The machine spindle is driven by servo motor, and it's easy to adjust the pitch and length; therefore, it can meet the requirement of different size products.



The designs are subject to modification and improvement without notice.





YC-800 / YC-1225

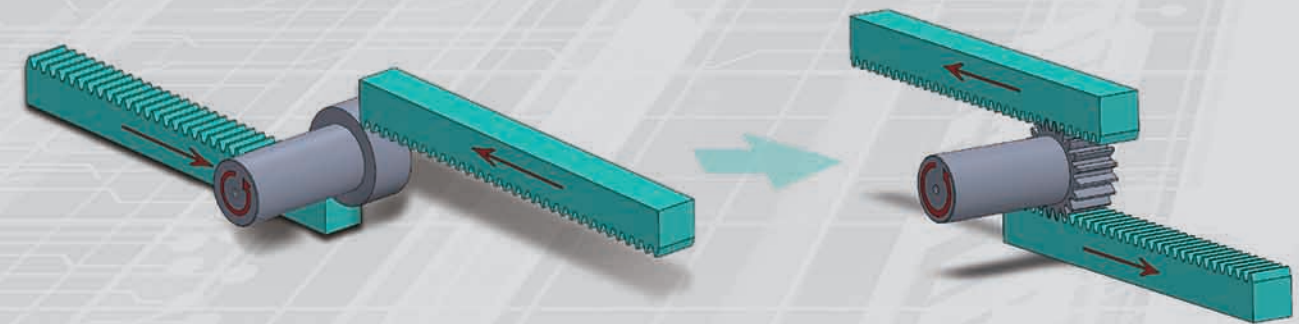
- Special for precision parts of vehicle, motorcycle, agricultural machine, filter, pneumatic, hydraulic 7 various hardware tools...etc. splines, serrations, oil grooves, worm gears, screws, knurl, threads and similar forms. "Chipless" forming to achieve excellent mass-productivity.
- This machine meets our group policy "Give organization vitality; Give system life; Give company development and Give customers satisfaction."



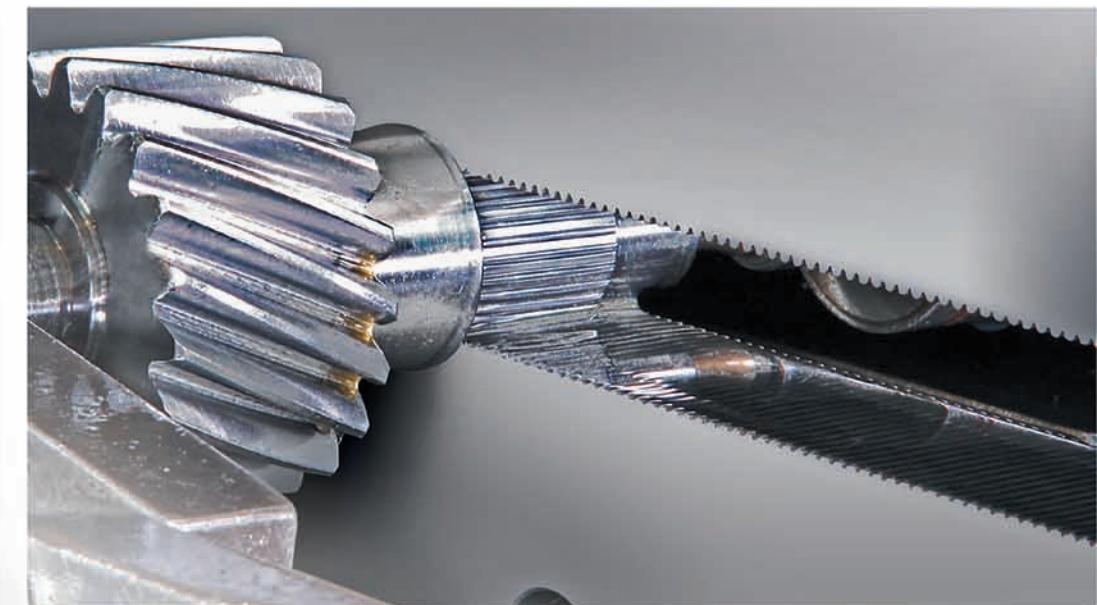
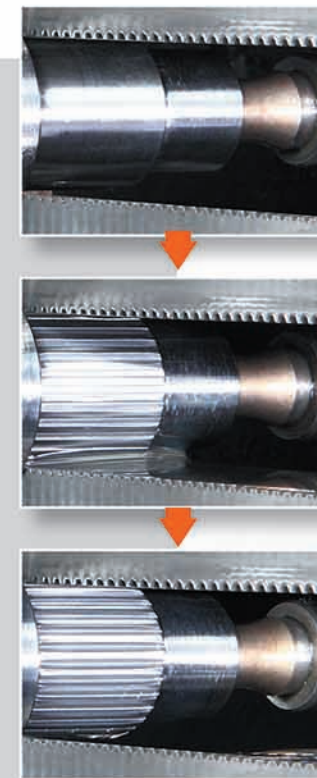
- Spline Rolling Machine is using Rack die/cutter instead of Cylinder thread rolling die; many different types of splines, serrations, oil grooves, worm gears, screws, knurls, threads and similar forms can be rolled in individually or in combination in just 3 to 7 seconds.

- The concept of Spline Rolling Machine (Cold form rolling machine of splines) was conceived more than 10 years ago. YIEH CHEN R&D team takes around 3 years to develop this model.

▼ The demonstration of spline rolling by upper and lower forming racks.



▼ Actual rolled spline by Yieh Chen spline rolling machine.



- The Spline Rolling Machine is inherently accurate, with surface finishes of 3 to 6 micro-inches obtainable.
- Spline Rolling is best suited for long production runs or intermittent runs of a variety of parts.
- It's the fastest and most economical method of producing involute toothed forms.

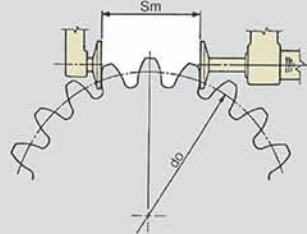
Tooth Profile Inspection



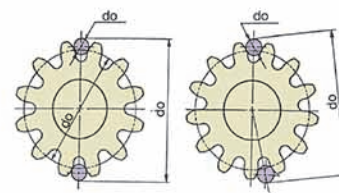
Lead Inspection



Span Value



Over Pins Diameter



MAIN SPECIFICATION		YC-800	YC-1225	YC-1225P
Min. Component Diameter (mm)	工件最小外徑	13 (0.51")	13 (0.51")	13 (0.51")
Max. Spline Diameter (mm)	花鍵最大外徑	30 (1.18")	40 (1.57")	50 (1.97")
Max Spline Length (mm)	花鍵最大長度	110 (4.33")	110 (4.33")	110 (4.33")
Min. Component Length (mm)	工件最小長度	100 (3.94")	100 (3.94")	100 (3.94")
Max. Component Length (mm)	工件最大長度	1000 (39.37")	1200 (47.24")	1200 (47.24")
Max. Spline Module	花鍵最大模數	1.25	1.5	1.75
Standard Length of Spline Forming Rack	花鍵刀具長度	24"	36"	48"
Standard Length of Thread Forming Rack	螺紋刀具長度	13"	13"	13"
Hydraulic Motor	油壓馬達	40HP	50HP	50HP (6P)
Cooler Capacity	冷卻能力	5 TON	7.5 TON	7.5 TON
PLC Control System	PLC控制器	Mitsubishi	Mitsubishi	Mitsubishi
Floor Space (LxWxH)	佔地面積(長x寬x高)	2700 x 4200 x 2100mm	3700 x 4200 x 2100mm	3700 x 4200 x 2100mm
Packing Measurement (LxWxH)	包裝尺寸(長x寬x高)	4000 x 5000 x 3000mm	5000 x 5000 x 3000mm	5000 x 5000 x 3000mm
Net Weight (Kgs)	淨重	12,000 kgs	15,000 kgs	15,000 kgs
Gross Weight (Kgs)	毛重	12,500 kgs	15,600 kgs	15,600 kgs

The designs are subject to modification and improvement without notice.

Standard Accessories:

- Machine Safety Device
- Parts Setter
- Lubrication System
- Cooling System
- Electrical Control Unit
- Tooling & Tool Box
- Operation & Maintain Manual

Optional Accessories:

- Various Forming Racks
- Auto Loading System
- Special Center
- Customer-made Acceptable

Forming Racks

- Yieh Chen spline rolling machine incorporates the forming racks with the highest quality of steel.
- The surface treatment applied on our forming racks can increase the durability and lifetime of the rack die.
- Regular forming rack sizes ranging from 13", 18", 24", 36" and 48" which is subject to change according to customer's workpiece spline details.

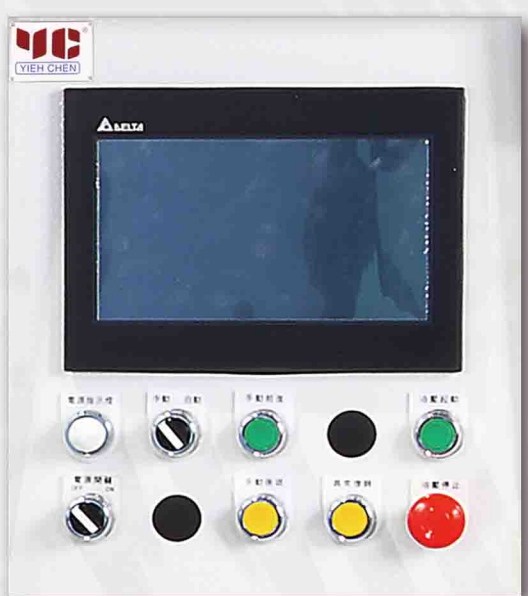


Finished workpiece with excellent surface and accuracy of splines, worms, oil grooves and more, generated by Yieh Chen spline rolling machine:



YC-970 Heavy-Duty Thread Rolling Machine



EQUIPPED WITH SHEET METAL SAFETY COVER, TOUCH SCREEN AND MORE!

MAIN SPECIFICATION		YC-970	STANDARD EQUIPMENT
Rolling Size 可加工外徑	Min. O.D. 最小外徑	25 mm	 Touch Screen
	Max. O.D. 最大外徑	150 mm	
	Max Thread Length 牙長	In feed and through feed 滾通及固定	
Max. Pitch 可加工最大節距		3~16 mm	 Frequency Converter
Roll Dies 牙輪	Rolling Speed 轉速	20~60 rpm 無段變速 stepless speed regulation	
	Max. Outside Dia. 最大外徑	250 mm	
	Inside Dia. 內徑	85/100 mm	 Freezer
	Max. Width 寬度	250 mm	
Max. Center Distance of Die-Spindle 牙輪中心最大距離		400 mm	
Min. Center Distance of Die-Spindle 牙輪中心最小距離		230 mm	
Max. Rolling Force 最大滾製壓力		120 TON	
Motor 馬達	Rolling Spindle 主軸	40 HP (50 HP optional)	
	Hydraulic Pump 油壓	15 HP (20 HP optional)	
	Coolant Pump 冷卻	1/6 HP	
	Gear Box Pump 齒輪箱冷卻	1/8 HP	
Frequency Converter 變頻器		50 HP	
N.W. 淨重		7000 kg	
G.W. 毛重		7500 kg	
Floor Space 佔地面積		2600 x 2100 mm	
Packing Dimension (L x W x H) 包裝尺寸		2800 x 2250 x 2550 mm	

* The designs are subject to modification and improvement without notice.

MAIN FEATURE



1. Over 120 tons rolling pressure.
2. Sheet metal safety cover.
3. Touch screen shows the lead angle and the rolling die feeding amount, able to shorten the die-changing and machine set-up time.
4. PLC control and frequency converter make the rolling speed adjustable.
5. Optimized hydraulic system with the aid of oil cooling system.
6. Rolling hardness can be 40 HRC by maximum. (with special thread rolling die)
7. Finished surface roughness is achievable by Ra 3.2 μ m or RMS125.
8. Allen Bradley starters are available. (USA market only)

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