



PPM

OIL-LESS BEARING

P/M PARTS

ISO/TS 16949

ISO 14001

虹銘股份有限公司
RAINBOW MING INDUSTRIAL CO., LTD.

韋程股份有限公司
PRECISION POWDER METALLURGY INCORPORATION

<http://www.ppm.com.tw>

公司簡介

Company Profile

虹銘〔章程〕股份有限公司成立於1975年元月，本公司為粉末冶金之專業製造廠商，我們一向以“品質第一，顧客至上”的服務精神，在累積了數十年的生產技術及全體同仁團隊合作下，使得我們的產品邁向更多元化，精緻化及更優良之品質。目前我們的產品不但深入各個行業，更擴展至東南亞、中國、日本、美國、澳洲、歐洲等地。

值此邁入第五個十年的時刻，我們將以更執著的敬業精神與穩健的步伐，開拓更廣闊精密的冶金產品空間，並提供給客戶最佳品質的產品，最合理的價格，以及最完善的服務。

Rainbow Ming has been playing a leading role in the Powder Metallurgy industry since it was established in 1975. Under our motto of "Customer is always right, Our Product is the best", we have offered our customers with the excellent products at the most reasonable prices within the shortest times. With our decades of experiences and earnest workforce, Rainbow Ming's products have been successfully distributed to the international markets such as USA, Japan, Europe, Australia, China and Southeast Asia.

At the beginning of the fifth decade of our business, we will continue to dedicate ourselves to extensive researches and developments of Powder Metallurgy, so as to present the everlasting excellent products to our customers.

經營理念

Management Philosophy

優良的品質 / 準確的交期 / 公道的價格 / 熱忱的服務

Excellent quality / On-time delivery / Competitive prices / Best customer service



公司沿革 Company History

- 創立於 1975年元月，資本額5000萬。
地址：苗栗縣頭份鎮田寮里1-2號。
- 1984 - 購買工廠土地1000坪，廠房800坪，於7月遷入。
地址：苗栗縣竹南鎮山佳里15鄰79號。
- 1996 - 擴建廠房為2,000坪，於年底完成。
- 1998 - 取得ISO-9000 品質認證。
- 2002 - 8月取得 QS-9000 認證並致力產品外銷世界各地。
- 2004 - 推動 ISO-14001 環境管理系統，並於當年10月取得驗證。
- 2005 - 9月取得 ISO-9001 及ISO/TS16949 品質驗證。
- 2006 - 行政區域重新劃分。
地址：苗栗縣竹南鎮佳興里環市路三段561號。



ISO-9001

- 1975 - Founded in January with capital 50 million NT dollars.
Address: No. 1-2, Tian Liao Li, Tou Fen, Miaoli
- 1984 - We purchased a land 1000 level ground with a 800 level ground factory, and moved in the new factory in July. Address: No. 79, 15 lin, Shan Jia Li, Chunan, Miaoli
- 1996 - Extended factory to 2000 level ground, and accomplished it at the end of the year.
- 1998 - Obtained ISO-9000 Certification.
- 2002 - Obtained QS-9000 Certification in Aug.. And devoted to sale products abroad.
- 2004 - Gave an impetus to ISO-14001 environment administrating system, and obtained ISO-14001 Certification in Oct..
- 2005 - Obtained ISO-9001 AND ISO/TS16949 Certification in Sep..
- 2006 - The Administrative Division re-demarcated. Our new address is "No. 561, sec. 3, Huanshih Road, Jia Sing Li, Chunan, Miaoli"

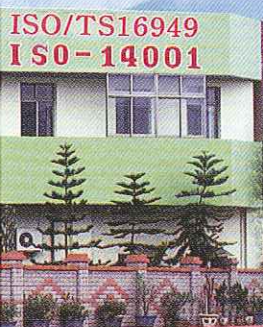


ISO/TS16949

品質政策 Quality Policy

虹銘〔韋程〕股份有限公司以設計、生產、品質與服務的能力來達成對客戶的承諾，並以“製程專心”，“品質用心”，“客戶放心”之品質政策，全員參與落實ISO 9001:2000及ISO/TS16949:2002之精神，提供客戶合理價格及最佳品質之產品，同時能得到最完善之服務與技術諮詢。

Though we have fully utilized our designs, production, and good service attitude to satisfy customers' demands, our policy of DEVOTION, CONSIDERATION and EARNEST have urged us to exert more efforts with the spirit of ISO 9001:2000 and ISO/TS 16949:2002 to achieve the perfect satisfaction from customers.



環境政策

Environment Policy

防治污染、善用資源、持續改善、全員參與

- 依循政府環境，安衛法規相關要求。
- 推動污染預防，對違反環保法規等採行防治措施。
- 執行節約能源，如用水、用電的節省，以減低能源的耗竭。
- 持續減廢，改善製程，使廢棄物減少。
- 落實資源回收，並做好垃圾分類，創造安全健康的工作環境。
- 確保暢通的內外部溝通與宣傳，同為保護環境而努力。



ISO-1401

*Prevention and cure of pollution , Use the natural resources effectively ,
Continuous improvement ,Entire personnel participation.*

1. To comply with Government's Security & Hygiene regulation.
2. To set pollution prevention into action, and to prevent and cure any action that against environmental protection regulation.
3. To economize on resources such as water and electric power to slow the consumption of resources .
4. To improve manufacturing process for decreasing waste continuously.
5. To bring recycling into practice, and classify garbage to create safe and healthy environment.
6. To assure free communication and announcement between interior and exterior of company, and strive to protect our environment.

環境標語：減廢、撿廢、再減費！

Environment catchphrase : Decrease waste,
Collect waste, Reduce expense



粉末冶金製程

Processes Of Metallurgy

Raw material
原料



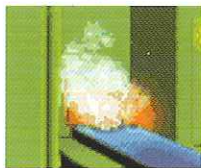
Mixing
攪拌



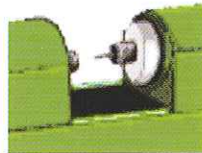
Compacting
成型



Sintering
燒結



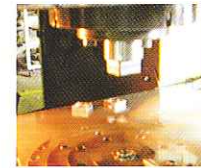
Heat treatment
熱處理



Machining
機械加工



Second sintering
二次燒結



Sizing 整型



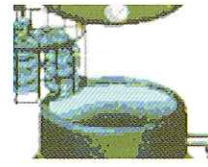
Vibrating Tumbling
振盪研磨



Plating 電鍍



Steam treatment
染黑



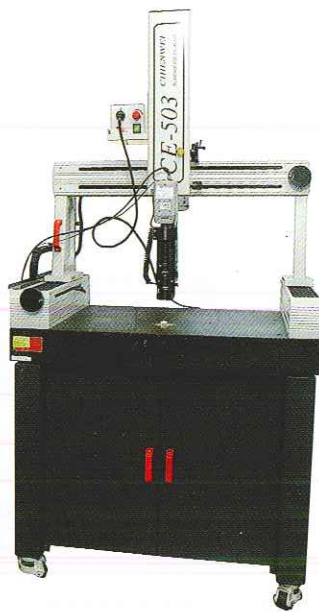
Oil Impregnation
真空含油

Final product
包裝



Inspection
品檢

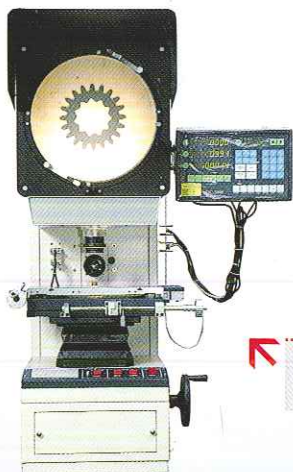
檢驗設備 Inspection Equipments



↗ 三次元測試機
3D Coordinate Measuring Machine



↗ 齒輪測定機
Gear Profile, Lead &
Pitch Measuring Instrument



↖ 投影機
Profile Projector



↗ 二次元高度機
2D Measuring Machine

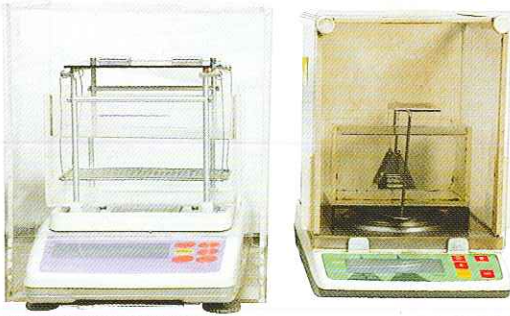


↗ 材料破壞試驗機
Computer Servo Control
Materials Testing Machine



↖ 洛式硬度機
Rockwell Hardness Tester

檢驗設備 Inspection Equipments



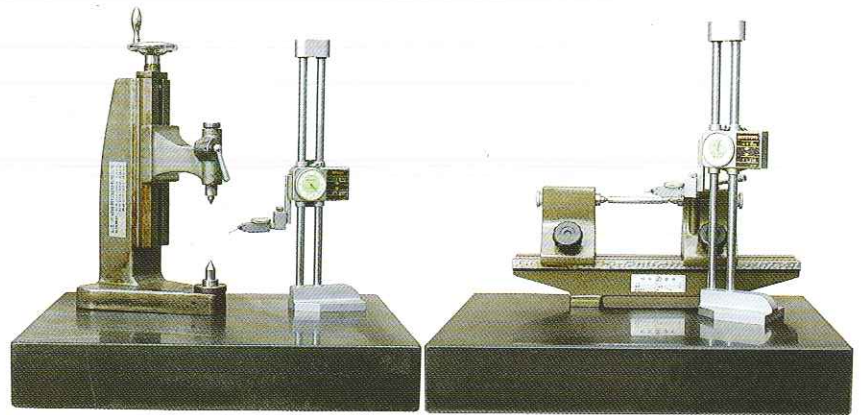
精密天平
Precision Scale



精密量規 & 空氣量規
Precision Hole Gage & Air Gage



真圓度測試機
Roundness Tester

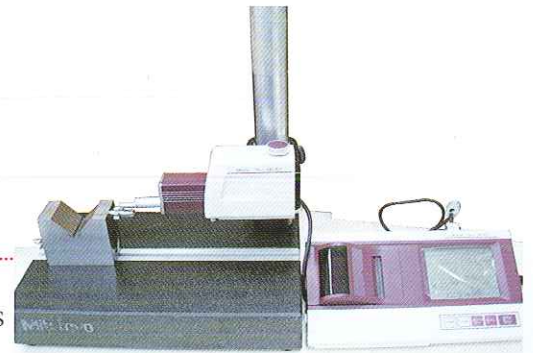


立/臥式偏心台
Deflection Tester

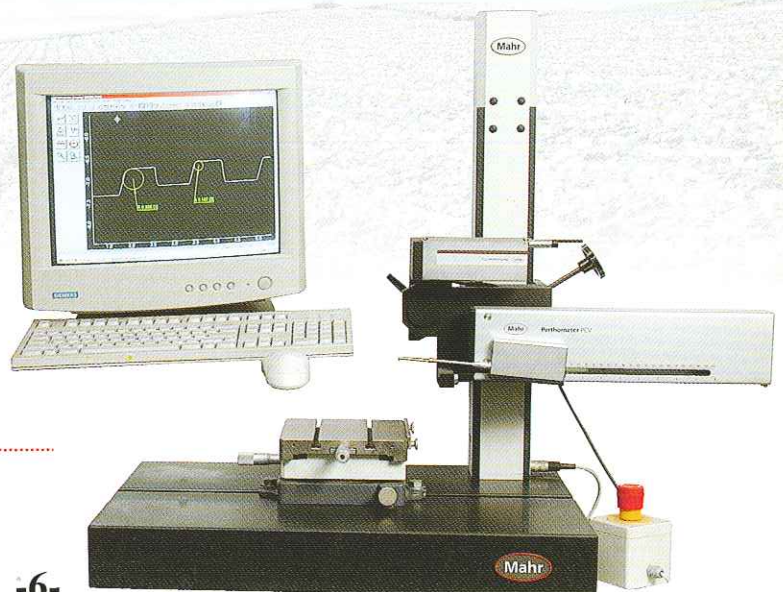


維克氏硬度機
Micro Hardness Tester

表面粗度測試機
Surface Roughness Tester

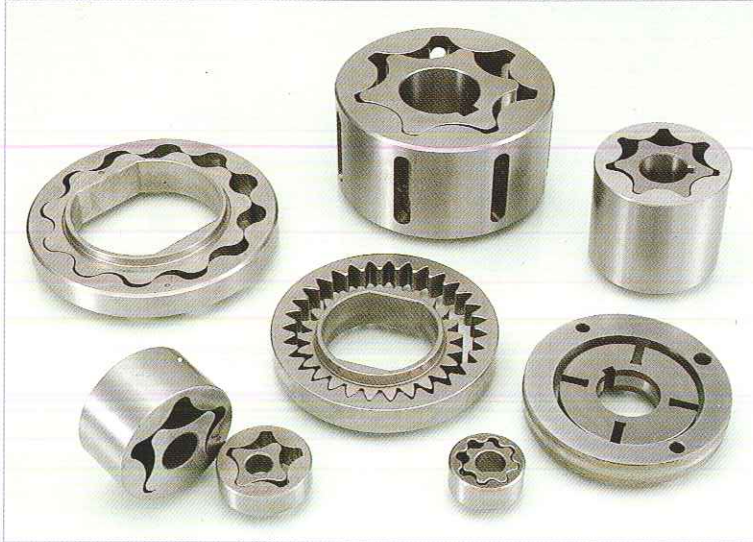


輪廓機
Perthometer



汽機車零件

Automobile and motorbike parts



機油泵零件
Oil pump rotor parts



出力軸
Transmission shaft



其他應用
Other applications



時規皮帶輪
Timing pulleys

汽機車零件

Automobile and motorbike parts



鏈輪
Sprocket parts



葉輪
Rotors



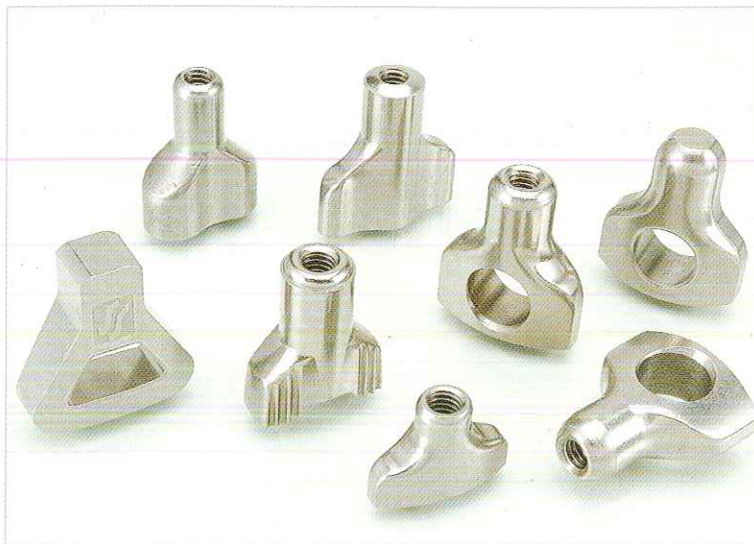
避震器零件
Shock absorber parts



傳動齒輪
Transmission parts

主要產品

Main Product



管接頭零件
Pipe fittings



五金零件
Hardware parts



過濾器零件
Filter parts



黃銅零件
Brass parts

主要產品

Main Product



含油軸承
Oil impregnated bearings



不銹鋼零件
Stainless steel parts



氣動工具零件
Pneumatic tool parts



釣具零件
Fishing tackle parts

主要產品

Main Product



縫衣機零件
Sewing machine parts



電動工具零件
Power tool parts



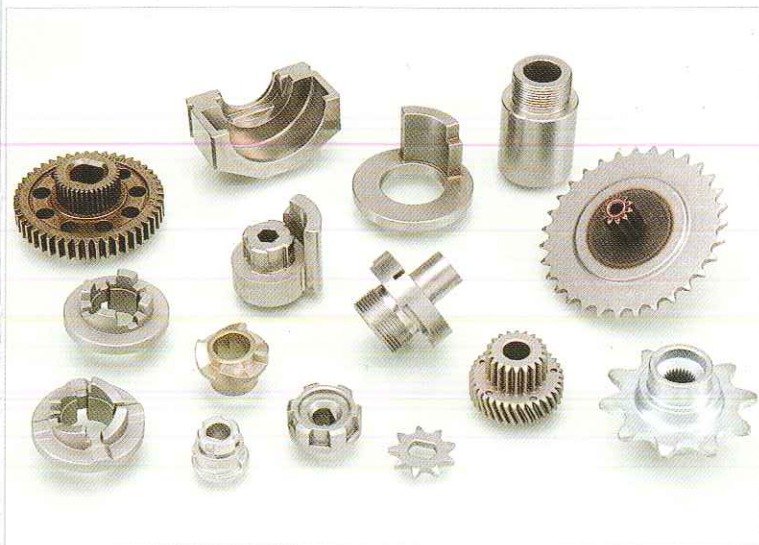
螺旋齒輪
Helical gears



鎖類零件
Lock parts

主要產品

Main Product



醫療器材零件
Medical appliance parts



事務機器零件
Office appliance parts



壓縮機零件
Refrigerator compressor parts

主要產品

Main Product



軟磁性零件
Soft magnetic parts



燒結硬化零件
Sinter hardened steel



傘齒輪
Bevel gear parts

Typical Properties of Rainbow Ming Parts

The detailed properties of various PPM parts are shown in the following table.

The part with a property other than listed will be quoted on request.

<Table: I>

Type		Bronze	Brass	Fe	Fe-Cu	Fe-C	Fe-Cu-C		Fe-Cu-Ni-Mo-C			Cu Infiltrate
Comparative Specifications (std)		MPIF CT-1000	MPIF CZP-2002	MPIF F-0000	MPIF FC-0200	MPIF F-0008	MPIF FC-0205	MPIF FC-0205 -80HT	MPIF FD-0205	MPIF FD-0205 -105HT	MPIF FD-0405	MPIF FX-1008
DIN CODE		SINT A50	-	SINT D00	SINT B10	SINT C01	SINT C11	SINT C11HT	SINT D39	SINT D39HT	SINT D30	-
JIS CODE		SBK 1218	-	SMF 1015	SBF 2118	SMF 3030	SMF 4040	SMF 4040HT	SMF 5030	SMF 5030HT	SMF 5040	-
Application	Machine parts	-	●	●	●	●	●	●	●	●	●	●
	Oil impregnated Bearings	●	-	-	●	-	-	-	-	-	-	-
Chemical Composition (%)	Fe	-	-	bal	bal	bal	bal	bal	bal	bal	bal	Bal
	C	-	-	-	-	0.4~0.8	0.3~0.6	0.4~1.0	0.3~0.6	0.4~1.0	0.3~0.6	0.3~0.8
	Cu	bal	77~88	-	2.0	-	1~3	1~3	1~2.5	1~2.5	1~2.5	8~14.9
	Sn	8~11	-	-	-	-	-	-	-	-	-	-
	Ni	-	-	-	-	-	-	-	1~5	1~5	2~8	-
	Pb	-	1~2	-	-	-	-	-	Mo0.5	Mo0.5	Mo0.5	-
	Zn	-	bal	-	-	-	-	-	-	-	-	-
	Others	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 4.0
Physical Mechanical Properties	Density (g/cm³)	6.4~6.8	7.6~8.0	6.8 Min	5.6~6.4	6.6	6.8	6.8	6.8	6.8	6.8 Min	7.2 Min
	Oil Content (VOL. %)	18 Min	-	-	18 Min	-	-	-	-	-	-	-
	Ultimate Tensile Strength (kg/mm²)	8	15	20	15	30	50	60	40	80	40	60
	Elongation (%)	2	10	5	1.0	0.5	1.0	0.2	1.0	0.3	1.0	2.0
	Radial Crushing Strength (kg/mm²)	15 Min	-	-	20 Min	-	-	-	-	-	-	-
	Hardness	RH30~70	RH75	RB20	RH30~70	RB40	RB40	MHV450 Min	RB60	MHV450 Min	RB70	RB80

<Table: II (Stainless)>

Type	Chemical Composition (%)											Physical Mechanical Properties			
	Fe	Cr	Ni	Cu	Tin	Si	Mn	Mo	C	S	Other	Density(g/cm ³)	Ultimate Tensile Strength (kg/mm ²)	Elongation(%)	Hardness
SUS303LSC	Bal.	18.2	12.5	2.0	1.0	0.8	0.13	-	< 0.08	0.20	< 1.0	> 6.5	30 Min.	Min.2.0	RB50
SUS316LSC	Bal.	17.0	13.5	2.0	1.0	0.75	0.12	2.2	< 0.08	0.01	< 1.0	> 6.5	30 Min.	Min.8.0	RB45
SUS410L	Bal.	12.7	-	-	-	0.8	0.18	-	< 0.08	0.01	< 1.0	> 6.5	40 Min.	Max.2.0	≒RC20
SUS434L	Bal.	17.8	-	-	-	0.8	0.17	1.0	< 0.03	0.01	< 1.0	> 6.5	30 Min.	Min.5.0	RB50



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