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PROFESSIONAL
POLISHING AND DEBURRING
MACHINE MANUFACTURER



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斯曼克精密機械有限公司

擅長解決的問題

GOOD AT SOLVING PROBLEMS

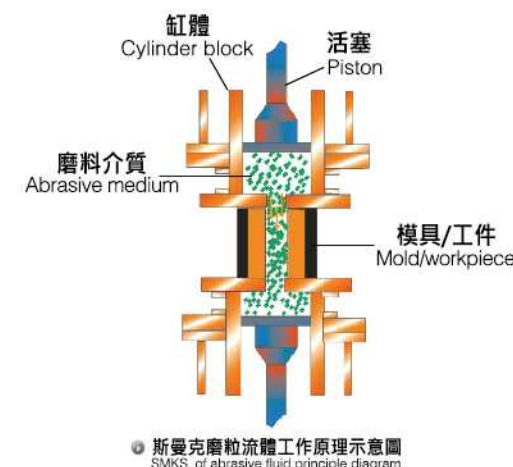


更多領域詳見案例...

SEE THE CASE FOR MORE FIELD...

工作原理介紹

WORKING PRINCIPLE



● 斯曼克磨粒流體工作原理示意圖
SMKS of abrasive fluid principle diagram

磨粒流體拋光機使用金剛石微粉或碳化矽微粉等各式研磨劑混合成高分子彈性柔軟的介質,通過上下擠壓運動使磨料通過內孔或加工面以往復運動的方式來進行表面拋光,特別針對各式模具及異形微小孔內腔工件尤其顯著。研磨痕跡與流體通過的方向一致,致使工件需拋光部位達到光整的最佳效果;

本公司所生產的SMKS AFM 系列雙向/單向/高速磨粒流/微細孔/鏡面噴射磨粒流體拋光機現有機型:
SMKS-B500、SMKS-B600、SMKS-B700、SMKS-B800、SMKS-C800、SMKS-C800BL、SMKS-C1050、SMKS-C1050BL、SMKS-C1300、SMKS-B601、SMKS-B701、SMKS-B801、SMKS-B1051、SMKS-C1301、SMKS-B801LT、SMKS-B801HT、SMKS-C801X2、SMKS-C801X4、SMKS-C1051X4、SMKS-602、SMKS-802、SMKS-1002、SMKS-XF608、SMKS-XF808、SMKS-M901、SMKS-F5061、SMKS-F6071、SMKS-F7081等系列;該系列產品可以滿足不同大小零件的拋光研磨需求,也可根據客戶工件需求進行訂製機型;

本公司現有拋光磨料系列:高分子鑽石彈性軟磨料、碳化硼彈性軟磨料、綠色碳化矽彈性軟磨料、黑色碳化矽彈性軟磨料、微細孔高分子油性磨料、高分子懸浮磨料等廣泛應用於航太工業、汽車工業、紡織工業、擠壓模具、拉絲模具、冷鍛模具、壓鑄模具、醫療行業及食品行業等;

本公司的產品由於採用了獲得專利權的特殊設計,專利號(ZL2012 2 0515308.6; ZL 2015 3 0479041.9; ZL 2016 2 0457561.9等)。可以對磨料的壓力、流量和速度分別進行調節,並根據廣大客戶需求自主研發新型自動化磨粒流體拋光機,在兼顧拋光研磨質量和效率方面取得了完美的效果,使企業順利向工業4.0轉型,實現智慧工廠、智慧生產,從而使產品具有領先於國內外同類產品的性能。

Abrasive Flow Machine Uses Diamond Fine Powder, Silicon Carbide Powder or other Abrasives Mixed Into Polymer Elastic as a soft medium . The abrasives flow up and down through the inner holes or over the machined surface to achieve surface polishing. Especially suitable for all kinds of mould and irregular shape tiny cavities.

Our company produce the AFM machine include: SMKS-B500、SMKS-B600、SMKS-B700、SMKS-B800、SMKS-C800、SMKS-C800BL、SMKS-C1050、SMKS-C1050BL、SMKS-C1300、SMKS-B601、SMKS-B701、SMKS-B801、SMKS-B1051、SMKS-C1301、SMKS-B801LT、SMKS-B801HT、SMKS-C801X2、SMKS-C801X4、SMKS-C1051X4、SMKS-602、SMKS-802、SMKS-1002、SMKS-XF608、SMKS-XF808、SMKS-M901、SMKS-F5061、SMKS-F6071、SMKS-F7081 etc. These machines can meet the polishing and deburring requirements for different size workpieces. These models can also be customised according to customer's demand.

The company existing polishing abrasive series: high polymer elastic soft abrasive diamond and boron carbide elastic soft abrasive, black silicon carbide, green silicon carbide elastic soft abrasive, micro pore oily abrasive, abrasive suspension polymer polymer, and other widely used in aerospace industry, automobile industry, textile industry, extrusion die, drawing die, cold heading die, die casting mould, medical industry and food industry, etc.;

Our company's products because of the special design, adopted to obtain the patent patent number (ZL 2012 2 0515308.6; ZL 2015 3 0479041.9; ZL 2016 2 0457561.9, etc.). Abrasive pressure, flow and speed can be adjusted respectively, and according to the independent research and development of new customers demand automatic polishing machine, abrasive fluid in the polishing quality and efficiency of give attention to two or more things achieved perfect effect, make the enterprise to industrial 4.0 transformation smoothly, realize the wisdom, wisdom, plant production, so that the product has the leading to the performance of similar products at home and abroad.

主營業務

MAIN BUSINESS

• 雙向往復循環式流體拋光機

Two Way Circulating Fluid Polishing Machine

• 單向自動循環式流體拋光機

One Way Automatic Circulating Fluid Polishing Machine

• 微細孔磨粒流體拋光機

Micro Hole Abrasive Flow Polishing Machine

• 高速磨粒流體去毛邊機

High Speed Deburring Machine

• 鏡面噴射磨粒流體拋光機

Mirror Jet Polishing Machine

• 高分子彈性軟磨料

Polymer Elastic Soft Abrasive

更擅長解決複雜性拋光去毛邊難題

MORE EFFECTIVE TO SOLVE THE
COMPLEXITY AND POLISHING DEBURRING PROBLEM

設備清單

EQUIPMENT LIST

機型	型號	高	寬	深度	重量	夾具操作高度	磨料缸直徑	加工壓力	電壓
雙向往復循環式流體拋光機	SMKS-B500	2000	1000	950	1.8T	300	102	1-14Mpa	220/380 V 3相
	SMKS-B600	2100	1310	1000	2.3T	300	152	1-14Mpa	220/380 V 3相
	SMKS-B700	2200	1400	1100	2.7T	350	202	1-12Mpa	220/380 V 3相
	SMKS-B800	2400	1500	1200	3.2T	400	252	1-12Mpa	220/380 V 3相
另有SMKS-C800、SMKS-C800BL、SMKS-C1050、SMKS-C1050BL、SMKS-C1300等多種非標機型，可根據您的需求進行訂製！									
單向自動循環式流體拋光機	SMKS-B601	2450	1360	1120	2.5T	500	152	1-12Mpa	220/380 V 3相
	SMKS-B701	2450	1400	1200	2.8T	500	202	1-12Mpa	220/380 V 3相
	SMKS-B801	2570	1500	1700	3.3T	500	252	1-12Mpa	220/380 V 3相
	SMKS-B1051	2570	1700	1700	4.8T	550	352	1-10Mpa	220/380 V 3相
	SMKS-C1301	2600	3000	2000	5.6T	600	502	1-10Mpa	220/380 V 3相
另有SMKS-B801LT、SMKS-B801HT、SMKS-C801X2、SMKS-C801X4、SMKS-C1051X4、SMKS-F5061、SMKS-F6071、SMKS-F7081等多種非標機型，可根據您的需求進行訂製！									
微細孔磨粒流體拋光機	SMKS-602	2000	800	1800	1.5T	200	80	1-12Mpa	220/380 V 3相
	另有SMKS-802、SMKS-1002 等多種非標機型，可根據您的需求進行訂製！								
高速磨粒流體去毛邊機	SMKS-XF608	2000	1600	2000	3.6T	350	250	1-12Mpa	220/380 V 3相
	SMKS-XF808	2500	2100	3500	5T	350	250	1-12Mpa	220/380 V 3相
另有多種非標機型，可根據您的需求進行訂製！									
鏡面噴射磨粒流體拋光機	SMKS-M901	1540	630	850	0.8T	非標	非標	非標	220/380 V 3相
	另有多種非標機型，可根據您的需求進行訂製！								

雙向往復循環式流體拋光機

TWO WAY CIRCULATING FLUID POLISHING MACHINE



工作原理介紹 WORKING PRINCIPLE IS INTRODUCED

本技術利用上下油壓缸體運動擠壓的方式,使軟體磨料流經加工面、內孔或端角,進行去毛邊、倒角、及拋光研磨的加工;並以往復運動來進行鏡面加工。此種加工方式對於凹凸面與彎曲孔道等通常刀具達不到的複雜形狀,是最適合的加工方法,特別是在氣體、液體類流體的導通管內進行鏡面拋光,使研磨痕跡和流體通過方向一致,有效的提高模具或工件的性能、質量、光潔度能達到鏡面等級,同時延長模具及工件的使用壽命,加工後表面粗糙度可達Ra0.025~Ra0.01μm。

The machine equipped with a hydraulic cylinder, pumps the abrasive fluid up and down through the part to be processed to achieve polishing on the surface through an inner hole, burring and chamfering. A mirror surf is achieved by the circulating polishing fluid and is especially suitable for concave and convex surfaces and complex curved channels. Most suitable for gas and liquid fluid conduction tube. The method effectively improves the performance of the die or workpiece and achieves a bright and clean surface, the processed surface roughness can reach Ra0.025 ~ Ra0.01 microns.

主機外型尺寸 Machine Size

型號 Model	高 Height	寬 Width	深度 Depth	重量 Weight	備註 Remarks
SMKS-B500	2000 mm	1000 mm	950 mm	1.8 T	具體參數依實物為準 Specific parameters based on the actual product
SMKS-B600	2100 mm	1310 mm	1000 mm	2.3 T	
SMKS-B700	2200 mm	1400 mm	1100 mm	2.7 T	
SMKS-B800	2400 mm	1500 mm	1200 mm	3.2 T	

- 另有SMKS-C800、SMKS-C800BL、SMKS-C1050、SMKS-C1050BL、SMKS-C1300等多種非標機型,可根據您的需求進行訂製!
Otherwise SMKS-C800、SMKS-C800BL、SMKS-C1050、SMKS-C1050BL、SMKS-C1300 and various non-standard machines, According to your demand customized!

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其他參數 Other Parameters

型號 Model	夾具操作高度 Operation Panel	磨料缸直徑 Abrasive cylinder diameter	加工壓力 Processing pressure	電壓 Voltage
SMKS-B500	300 mm	102 mm	1-14 Mpa	220/380 V 3相
SMKS-B600	300 mm	152 mm	1-14 Mpa	220/380 V 3相
SMKS-B700	350 mm	202 mm	1-12 Mpa	220/380 V 3相
SMKS-B800	400 mm	252 mm	1-12 Mpa	220/380 V 3相

- 另有SMKS-C800、SMKS-C800BL、SMKS-C1050、SMKS-C1050BL、SMKS-C1300等多種非標機型,可根據您的需求進行訂製!
Otherwise SMKS-C800、SMKS-C800BL、SMKS-C1050、SMKS-C1050BL、SMKS-C1300 and various non-standard machines, According to your demand customized!



單向自動循環式流體拋光機

ONE WAY AUTOMATIC CIRCULATING FLUID POLISHING MACHINE



工作原理介紹 WORKING PRINCIPLE IS INTRODUCED

本技術是針對塑膠模具、熱嘴、熱流道、長管、彎管等不規則工件開發的一款新型流體拋光機！可依PLC控制達到自動、經濟、高效拋光的效果，其拋光痕跡和工件使用的方向一致，因此具有同方向規格性加工特點，此種加工方式，對於凹凸面與彎曲孔道、多孔、細孔、長孔等通常刀具達不到的複雜形狀，是最合適的加工技術。

我公司為了滿足客戶需求，根據客戶產品要求訂製單向磨粒流體拋光機及相關服務，也可為有需求的企業或個人提供熱流道系統代工服務和腔體以及微孔修復服務，另外有以下需求的均可聯繫我司，對微孔、多孔、長孔、彎孔、異形孔的工件內部拋光去毛邊等，讓產品在幾分鐘內提高3個精度級別，表面粗糙度可達 $Ra < 0.01\mu m$ 。

The technology of the one way AFM is designed for plastic injection moulds, hot nozzle, hot runner, long tube and bent pipe products. The PLC can control the polishing automatically to economically improve the polishing effects

This process is suitable for concave and convex surfaces, curved channels, irregular shape and micro holes and can meet any other complex shapes,

In order to meet customer demand we are not only providing the abrasive flow machines, but also provide services for customers who need polishing of hot runner systems, we can decrease the roughness in a few minutes and achieve a level of $Ra < 0.01$ microns.

主機外型尺寸 Machine Size

型號 Model	高 Height	寬 Width	深度 Depth	重量 Weight	備註 Remarks
SMKS-B601	2450 mm	1360 mm	1120 mm	2.5 T	具體參數依實物為準 Specific parameters based on the actual product
SMKS-B701	2450 mm	1400 mm	1200 mm	2.8 T	
SMKS-B801	2570 mm	1500 mm	1700 mm	3.3 T	
SMKS-B1051	2570 mm	1700 mm	1700 mm	4.8 T	
SMKS-C1301	2600 mm	3000 mm	2000 mm	5.6 T	

• 另有SMKS-B801LT、SMKS-B801HT、SMKS-C801X2、SMKS-C801X4、SMKS-C1051X4、SMKS-F5061、SMKS-F6071、SMKS-F7081等多種非標機型，可根據您的需求進行訂製！

Otherwise SMKS-B801LT、SMKS-B801HT、SMKS-C801X2、SMKS-C801X4、SMKS-C1051X4、SMKS-F5061、SMKS-F6071、SMKS-F7081 and various non-standard models, can be customized according to your requirements!

其他參數 Other Parameters

型號 Model	夾具操作高度 Operation Panel	磨料缸直徑 Abrasive cylinder diameter	加工壓力 Processing pressure	電壓 Voltage
SMKS-B601	500 mm	152 mm	1-12 Mpa	220/380 V 3相
SMKS-B701	500 mm	202 mm	1-12 Mpa	220/380 V 3相
SMKS-B801	500 mm	252 mm	1-12 Mpa	220/380 V 3相
SMKS-B1051	550 mm	352 mm	1-10 Mpa	220/380 V 3相
SMKS-C1301	600 mm	502 mm	1-10 Mpa	220/380 V 3相

• 另有SMKS-B801LT、SMKS-B801HT、SMKS-C801X2、SMKS-C801X4、SMKS-C1051X4等多種非標機型，可根據您的需求進行訂製！
Otherwise SMKS-B801LT、SMKS-B801HT、SMKS-C801X2、SMKS-C801X4、SMKS-C1051X4 and various non-standard machines, According to your demand customized!



微細孔磨粒流體拋光機

MICRO HOLE ABRASIVE FLOW POLISHING MACHINE



工作原理介紹 WORKING PRINCIPLE IS INTRODUCED

微細孔磨粒流體拋光原理實際上與我們的單向流體拋光機加工過程相似，主要差別是微細孔磨粒流體拋光機是使用一種低黏度媒介和更小的研磨粒子，磨料更輕，流動性更強，研磨效果更均勻，這樣磨料可以流過小孔或者微孔去除微小毛邊，改善壓力腔與小孔內壁表面質量。此款式磨粒流體拋光機專為燃料油霧噴頭噴嘴、油壓片閥體開發。該技術可以改善燃料霧化，改善發動機性能，並且降低排放物。在幾分鐘內提高3個精度級別，表面糙度可達 $Ra < 0.01\mu m$ 。

The principal of the Micro hole abrasive flow is similar to the one-way abrasive flow polishing process, the main difference is that micro hole abrasive polishing machine uses a low viscosity fluid medium and smaller abrasive particles, lighter liquid keeps the consistency of the viscosity and keep the grinding effect uniformly distributed.

The abrasives can flow through the holes or pores to remove tiny burrs, improving surface quality of the pressure cavity. This style of abrasive flow polishing machine is designed for fuel or oil mist nozzles, hydraulic valves. The process can improve the fuel atomization, improve engine performance, and reduce emissions.

主機外型尺寸 Machine Size

型號 Model	高 Height	寬 Width	深度 Depth	重量 Weight	備註 Remarks
SMKS-602	2000 mm	800 mm	1800 mm	1.5 T	具體參數依實物為準 Specific parameters according to the material

• 另有SMKS-802、SMKS-1002等多種非標機型，可根據您的需求進行訂製！
Otherwise SMK-802、SMKS-1002 such as a variety of non-standard models, Can be customized according to your requirements!

工作臺、夾具尺寸 Main Engine Size

型號 Model	夾具操作高度 Table height	磨料缸直徑 Table width	加工壓力 Processing pressure	電壓 Voltage
SMKS-602	200 mm	80 mm	1-12 Mpa	220/380 V 3相

• 另有SMKS-802、SMKS-1002等多種非標機型，可根據您的需求進行訂製！
Otherwise SMK-802、SMKS-1002 such as a variety of non-standard models, Can be customized according to your requirements!



微細孔磨粒流體拋光機在噴油嘴行業獨樹一幟，它根據壓力、磨料黏度、磨料溫度等參數之間的關係，進行複雜的程序運算得到。

在加工噴油嘴時，你只要設定好相應的數值，當它達到設定參數時，機器自動停止加工，加工時間在10S-20S之間，流量散差可以控制在正負0.1%之間。隨後再與流量測量儀器、高壓清洗設備配套，這些設備可以根據客戶要求配套一個工位或是多個工位。

Micro hole abrasive flow polishing machine is unique in the fuel injection nozzle industry. It is based on the relationship between the pressure, the viscosity of the abrasive, the abrasive temperature and other parameters.

In the process of fuel injection nozzle, as long as you set the appropriate value, when it reaches the set parameters, the machine automatically stops processing, processing time is between 10S-20S, flow dispersion can be controlled between plus or minus 0.1%.

高速磨粒流體去毛邊機

HIGH SPEED DEBURRING MACHINE



工作原理介紹 WORKING PRINCIPLE IS INTRODUCED

高速磨粒流去毛邊機，利用液態磨料，經過增壓系統後，增加了對工件毛邊的磨削力，通過液態磨料的高速擠壓研磨，達到快速去毛邊的效果。通過PLC控制磨料的壓力、角度及工作時間等技術參數，來定量修正工件表面粗糙度。該技術不會在工件上存在磨料殘留，高效安全、易於清潔！

該設備適用於不規則金屬工件的外表面快速去毛邊。去毛邊時，首先應選擇比工件材料硬度高的磨料種類，這樣才能切削被加工物體，使低硬度的物體表面受到切削加工。其次要保證磨料粒子在磨削液中保持一定的化學穩定性，以免在加工過程中，與其他物質發生化學反應。在一定範圍內，液態磨料濃度越高，單位時間內與工件表面單位面積發生磨削的磨料粒子就越多，材料去除率相應提高。

High speed deburring machine, using the liquid abrasive to move the burr after pressurization system. Through the PLC to control the pressure, angle and working time etc to achieve quantitative correction of workpiece surface roughness. The process was not on the workpiece with abrasive residue, high safety, easy to clean! The equipment is suitable for the irregular outer surface of the metal workpieces. In the process of polishing, you should choose the kind of abrasive hardness than the workpiece material. Secondly to ensure that the abrasive particles in the grinding fluid to keep certain chemical stability, so as to avoid in the process of machining, react with other substances. Within a certain range, the higher the liquid abrasive concentration, per unit area per unit time and parts' surface grinding of abrasive particles, the more material removal rate increase. When polishing metal material, can add a small amount of rust inhibitor.

主機外型尺寸 Machine Size

型號 Model	高 Height	寬 Width	深度 Depth	重量 Weight	備註 Remarks
SMKS-XF608	2000 mm	1600 mm	2000 mm	1.8 T	具體參數依實物為準 Specific parameters according to the material
SMKS-XF808	2500 mm	2100 mm	3500 mm	2.2 T	

- 另有多種非標機型，可根據您的需求進行訂製！
Otherwise a variety of non-standard models, can be customized according to your requirements!

其他參數 Other Parameters

型號 Model	夾具操作高度 Jig operating height	磨料缸直徑 Abrasive cylinder diameter	加工壓力 Processing pressure	電壓 Voltage
SMKS-XF608	350 mm	250 mm	1-12 Mpa	220/380 V 3相
SMKS-XF808	350 mm	250 mm	1-12 Mpa	220/380 V 3相

- 另有多種非標機型，可根據您的需求進行訂製！
Otherwise a variety of non-standard models, can be customized according to your requirements!



鏡面噴射磨粒流體拋光機

MIRROR JET POLISHING MACHINE

WORKING PRINCIPLE IS INTRODUCED 工作原理介紹

鏡面噴射磨粒流體拋光機，利用液態磨料對工件表面進行持續噴射研磨，從而達到鏡面效果。通過PLC控制磨料的壓力、角度及工作時間等技術參數，來定量修正工件表面粗糙度。該技術適用於不規則金屬工件表面的鏡面拋光，拋光效果均勻！

常用的磨料有氧化物系列、碳化物系列、高硬磨料系列及軟磨料系列等四種。不同種類的磨料，其拋光效果是不同的，各有其適用範圍。拋光時，首先應選擇比工件材料硬度高的磨料種類，這樣才能研磨被加工物體，使低硬度的物體表面受到切削加工。

其次要保證磨料粒子在磨削過程中保持一定的化學穩定性，以免在加工過程中，與其他物質發生化學反應。在一定範圍內，液態磨料濃度越高，單位時間內與工件表面單位面積發生磨削的磨料粒子就越多，材料去除率相應提高。

Mirror jet polishing machine, using the liquid abrasive to continuous spray grinding of workpiece surface. Through the PLC to control the pressure, angle and working time etc to achieve quantitative correction of workpiece surface roughness. In the process of polishing, you should choose the kind of abrasive hardness than the workpiece material. Secondly to ensure that the abrasive particles in the grinding fluid to keep certain chemical stability, so as to avoid in the process of machining, react with other substances. Within a certain range, the higher the liquid abrasive concentration, per unit area per unit time and parts' surface grinding of abrasive particles, the more material removal rate increase. When polishing metal material, can add a small amount of rust inhibitor.

主機外型尺寸 Machine Size

型號 Model	高 Height	寬 Width	深度 Depth	重量 Weight	備註 Remarks
SMKS-M901	1540 mm	630 mm	850	0.8 T	具體參數依實物為準 Specific parameters according to the material

另有多種非標機型，可根據您的需求進行訂製！
Otherwise a variety of non-standard models, can be customized according to your requirements!

其他參數 Other Parameters

型號 Model	夾具操作高度 Jig operating height	磨料缸直徑 Abrasive cylinder diameter	加工壓力 Processing pressure	電壓 Voltage
SMKS-M901	非標	非標	非標	220/380 V 3相

另有多種非標機型，可根據您的需求進行訂製！
Otherwise a variety of non-standard models, can be customized according to your requirements!

高分子彈性軟磨料

POLYMER ELASTIC SOFT ABRASIVE

1、此高分子彈性軟磨料、微細高分子油性磨料及高分子懸浮水性磨料等採用特殊高密分子彈性材料結合研磨介質進行鏈接產生高分子結構的彈性軟磨料，具有柔韌性大（猶如橡皮泥一樣的性能），擠壓膨脹性強，對研磨介質黏附力強，有助於磨削加工效率提高。

2、此軟磨料對材質要求不是很高，處理一些不銹鋼、高低硬度鋁鋼、各種合金鋼、銅、鋁、非金屬材料陶瓷、玻璃等工件內孔或外表面尤其有效。

1、The polymer elastic soft abrasive, micro pore oily abrasive and suspended abrasives are all special high-density molecular polymer elastic materials used for a combination of grinding applications. The Polymer structure of these elastic soft abrasives has strong expansion ability, strong adhesion to the grinding medium and helps to improve grinding efficiency.

2、The soft abrasive can work with high and low hardness tungsten steel, alloy steel, copper, aluminium, nonmetal materials such as ceramics, glass, especially effective for inner hole or outside surfaces



黑色碳化砂軟磨料

高分子鑽石軟磨料

白剛玉軟磨料

綠色碳化砂軟磨料

立方碳化硼軟磨料

粒度系列

PARTICLE SIZE SERIES

粒度是研磨介質內硬質顆粒的大小，由粗到細所用的粒度（泰勒篩號）為：
The particle size of the hard medium, is measured by the Taylor sieve system:

顆粒度 (目) Particle size (mesh)	46	60	80	120	180	w20	w10	w3.5	w0.5
顆粒 (目) Particle (mesh)	422-355	320-250	212-180	125-106	90-63	20-14	10-7	3.5	0.5

備註
Remarks

粒度選用需考慮的因素有三個：
第一是被加工件的通道截面的最小間隙，一般所選顆粒，尺寸應小於截面縫隙的1/5；
第二是研磨效率，粒度大則效率高；
第三是被研磨面的表面粗糙度，顆粒越粗，則研磨面的粗糙度越大。
There are three factors that need to be considered in grain size selection:
The first is the minimum gap of the processed parts. Size should be less than the section gap 1/5;
Second is the grinding efficiency, large size, high efficiency;
Third is the surface roughness of the grinding surface, the more coarse particles, The greater the grinding surface roughness;



用途

PURPOSE

- SDC鑽石軟磨料 (顯微硬度約10000kg/mm²)
SDC Diamond Soft Abrasive (Micro Hardness Of About 10000kg/mm²)
- CBN鑽石軟磨料 (顯微硬度約7200kg/mm²)
CBN Diamond Soft Abrasive (Micro Hardness Of About 7200kg/mm²)
- 碳化硼軟磨料 (顯微硬度約4500kg/mm²)
Boron Carbide Soft Abrasive (Micro Hardness Of About 4500kg/mm²)
- 綠色碳化砂軟磨料 (顯微硬度約3320kg/mm²)
Green Silicon E Soft Abrasive (Micro Hardness Of About 3320kg/mm²)
- 黑色碳化砂軟磨料 (顯微硬度約2840kg/mm²)
Black Silicon Soft Abrasive (Micro Hardness Of About 2840kg/mm²)
- 棕/白剛玉軟磨料 (顯微硬度約2000kg/mm²)
Brown And White Corundum Soft Abrasive (Micro Hardness Of About 2000kg/mm²)
- 油/水性液體磨料 (顯微硬度根據工件材質配置)
Oil/Water Liquid Abrasive (Micro hardness According To Workpiece Material Configuration)
- Silicon Carbide 碳化砂 (S) 最常用因為其是一種堅硬、耐用和價格適度的材料;
The most popular abrasive which is hard, durable and competitive on price.

- Aluminium Oxide 氧化鋁 - (A)
用在需要惰性研磨劑的時候，比如精加工中空高線超耐熱，不銹鋼飛機引擎葉片和導向葉片。
We add inert material (aluminum oxide) into the abrasive, when we polish high-nickel, heat-resistant materials, eg. stainless steel airplane engine blades
- Boron Carbide 碳化硼 - (B)
比金剛砂要堅硬並且去除材料的速度更快，它用於不易加工的材料，比如當用碳化砂去除材料太慢或磨損太快的情況下，硬工貝鋼、鑽鋼主要含鎳的耐熱不銹鋼。
It is harder than silicon carbide, use it when polishing speed with using silicon carbide media is too slow, eg. when polish hardened tool steel, cobalt steel, or stainless steel containing Nickel.
- Diamond Powder 鑽石粉 - (D)
用於特殊情況，例如鎢鋼等硬質合金工件。
It is especially for hard alloy materials like tungsten steel.

案例展示

EXAMPLE DEMONSTRATES

柴油噴油嘴系列 (微細孔機專業) Diesel nozzle series (micro hole machine)



汽車工業 Automotive industry



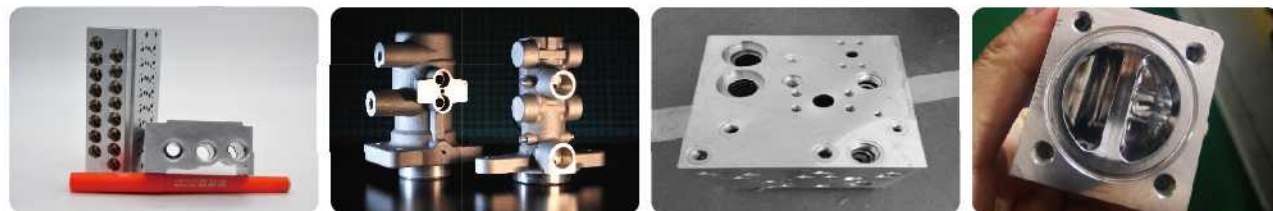
航太航空工業 Aerospace industry



劑型模具及塑鋼模具拋光 Injection mold and plastic mold polishing



油路塊及閥體交叉孔去毛邊 Oil blocks and body cross hole de-burring



案例展示

EXAMPLE DEMONSTRATES

油氣閥體去毛邊拋光 De-burring polishing oil and gas valve bodies



熱流道板及熱嘴內腔交叉口倒角拋光 Heat runner chamfering and hot nozzle cavity polishing



冷鐵模具及壓鑄模具 Cold heading mould and die casting mould



硬質合金、粉末冶金模具及刀具鈍化 Hard alloy, powder metallurgy mold and tool passivation



齒形拋光去毛邊 Tooth shape polishing and de-burring



案例展示

EXAMPLE DEMONSTRATES

▶ 渦輪及葉輪系列 Turbine and impeller series



▶ 製藥模具 Pharmaceutical mold



▶ 醫療器械 Medical apparatus and instruments



▶ 諧波齒輪及螺絲系列 Harmonic gear and worm series



▶ 紡織工業 Textile industry



案例展示

EXAMPLE DEMONSTRATES

▶ 不銹鋼管、3D列印產品及鏡面拋光 Stainless steel tube, 3D printing products and glass mirror polishing



▶ 不銹鋼零件拋光、去毛邊、倒R角 Stainless steel parts polishing, deburring, pour R Angle



▶ 不規則面拋光 Irregular surface polishing



▶ 噴絲板及微小孔去毛邊拋光 Spinneret and tiny hole deburring polishing



▶ 多孔、多邊去毛邊拋光 Multi size hole and edge de-burring and polishing

