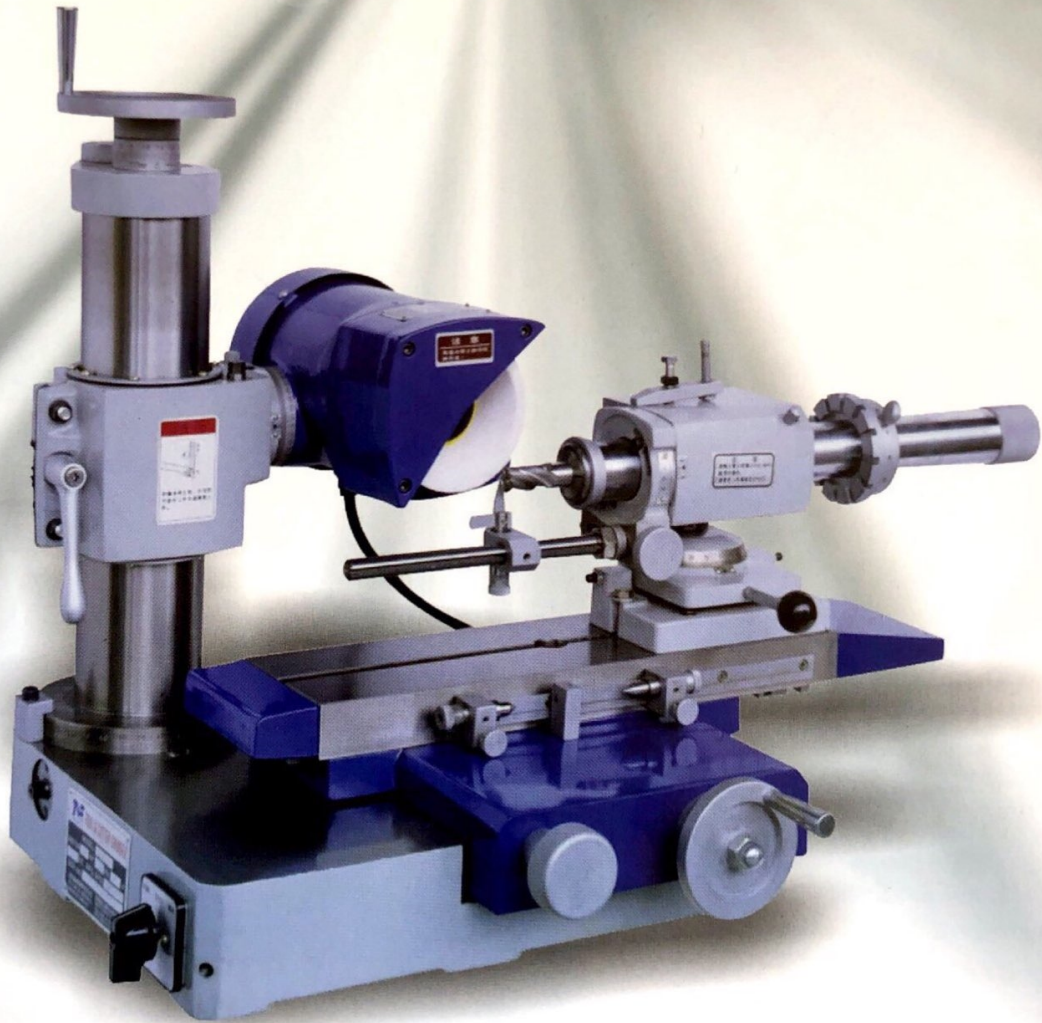




CHI TSENG

UNIVERSAL TOOL & CUTTER GRINDER

萬能工具磨床



錡增機械工業股份有限公司
CHI TSENG MACHINERY IND, CO., LTD.

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CT-305



CT-305,205 之工作台採用線性軌道設計利用：
1. 90° 的 V 形溝槽軌道，使他能夠承受來自各方向的力量。

90°"V" type slide way can bear power of each side.

2. 軌道經過特殊的熱處理，它是相當耐磨的。

Slide way is by well heat-treatment, very durable.



3. 採用圓筒形之支撐體，其間隙設計非常精密，因此允許的負重便更大。

Adopting cylindrical supporten precision pitch, it can take more strong strengeh.

4. 因和圓筒支撐體的摩擦係數很小，所以可以很平滑的移動。

Has a low friction between cage and the cylindrical suppouter, thus the working table a smooth movement.

端銑刀研磨

利用 C2AH 風壓軸座的輔助研磨，可以輕易的將端銑刀之螺旋刀刃及端面的第一、二隙角研磨完成。

A straight shank end mill being sharpened, held on C2AH fixture with 5C collet.

CT-205



CT-457



本公司出產之萬能工具磨床係以最精巧的結構設計，用最簡單的方法來研磨萬能銑床所用的各式鎢鋼銑刀，高速度鋼銑刀，及鎢鋼車刀等各類工作母機之各種特殊工具之用。採用經特殊設計之雙軸端馬達，故馬力大，其振動力少，內裝成對雙聯接觸角球軸承，確保心軸之真圓度及最高精度之性能，心軸之交換及修理亦很容易。

This machine is designed specially and accurately for grinding the miscellaneous tangalloy milling cutter, tool-bit and the other cutter or any special machine tools by the simplest method. The main motor are designed of double-ended and mounted the angular contact ball bearings which be centre-true and vibration-free operation to keep the runout and accuracy of its spindle in longtime. This motor is powerful and ball bearings are easy to maintain and repair.



CT-610採用鋼珠驅動
CT-610 is driven by steel rollers



CT-610



CT-610 特點：

1. 工作台採用鋼珠驅動，移動平滑。
2. 美觀堅固，適用於各類刀具研磨。
3. 風壓軸座係用經熱處理的鋁合金及不銹鋼管操作簡單且精度高。
4. 主軸座可作上下 160mm 的昇降。
5. 採用蝸桿及蝸輪傳動，可調整砂輪頭的旋轉及角度。
6. 立柱可做 360 度的旋轉。
7. 能消除前後進給螺桿間隙。

Features

1. Work table is driven by steel rollers for smooth movement.
2. Prtty and sturdy, suitable for various tools grinding.
3. Pneumatic axis seat is made of headed treated aluminum alloy, easy operation and high accuracy.
4. Main spindle is able to up or down for 160mm.
5. Driven by worm and gear, grinding wheel's swivel and angle are adjustable.
6. Column is able to swivel for 360.
7. Eliminate forward/backforwad feed rod screw's play.

CT-610 標準附件 Standard Accessories

1. 碗形砂輪 2 只
Cup wheel 2 pcs

2. 操作工具
Adjusting tools

3. 5C 筒夾 1 組 (7 只)
5C collet 1 set (7 pcs)
C2AH End mill grinder air bearing fixture 5C
5C collet taper "CT-610+C2AH"

CT-U2



U2 規格

最大夾持直徑	18mm
最大研磨直徑	25mm
推拔角度	0°~180°
離隙角	0°~45°
負推拔角度	0°~26°
主軸轉速	3600r.p.m
砂輪直徑	100x50x20mm
馬達	1/3HP, 1~2PH, 110~380V, 50/60HZ
淨重	45kgs
機械尺寸	(LxWxH)450x400x350mm
包裝材積	(LxWxH)550x450x470mm

Technical Data

Max. collet capacity	18mm
Max. grinding dia.	25mm
Taper angle	0°~180°
Relief angle	0°~45°
Negative angle	0°~26°
Grinding spindle	3600r.p.m
Cup grinding wheel	100x50x20mm
Motor	1/3HP, 1~2HP, 110~380V, 50/60HZ
Net weight	45kgs
Machine dimensions(LxWxH)	450x400x350mm
Packing dimensions(LxWxH)	550x450x470mm

U2 標準附件 Standard Accessories

1. 鑽石修刀 Wheel dresser with dimond	1pc
2. 砂輪法蘭 Wheel flange(mounted)	1pc
3. 砂輪 Grinding wheel	1pc
4. 筒夾 Collet 4,6,8,10,12mm	5pcs
5. 校直器 Aligning finger	1pc
6. 皮帶 Drive belt	1pc
7. 裝砂輪固定梢 Lock pin	1pc
8. 固定砂輪工具 Tools	1set

U2 特別附件 Optional Accessories

1. 砂輪平衡架 Grinding wheel balancing start
2. 鑽石砂輪 Diamond grinding wheel
3. 工具櫃 Tool cabinet
4. 筒夾 Collet 1,2,2.5,3,5,7,9,18,20,25mm and 1/8",3/16",1/4",5/16",3/8",1/2",5/8" inch

標準附件 Standard Accessories (CT305,457)



1. 碗形砂輪
Cup wheel



2. 磨車刀附件
Tool-bit grinding attachment.



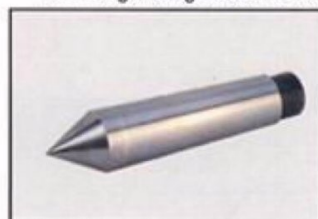
3. 平面銑刀套軸
Face-mill holder



4. 側銑刀套軸
Cutter arbor 1" OD.



5. 刀齒定位架
Tooth rest



6. 頂針
Center M.T. No.3



7. 工具
Adjusting tools



8. 冷卻裝置
Coolant system CT-305,457

功能 Function



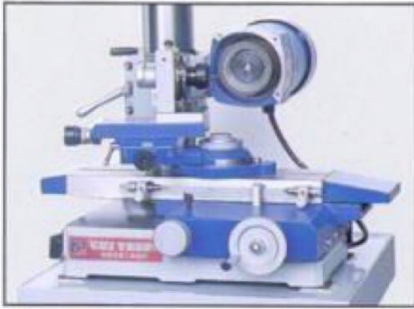
1. 側銑刀研磨
Sharpening side milling cutter held on C2SH fixture with a AA01-AA15 arbor, C2R1 plain tooth rest is indexed against index disc.



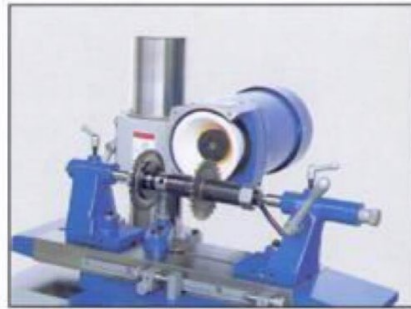
2. R型端銑刀研磨
Sharpening a ball radius end mill held on C1RG attachment.



3. 車刀研磨
Sharpening turning tool set-up on C2LH fixture.



4. 雕刻刀、R型刀、銑刀特殊研磨
Engraving, radius and end mill grinder



5. 側銑刀研磨
Sharpening side milling cutter held on C2T12 fixture with a AB01-AB04 arbor, C2R2 plain tooth rest is indexed against index disc.



6. 平立銑刀研磨
Sharpening face milling cutter being held in the C2SF fixture with a AA20-AA26 arbor, cutter is indexed with C2R1 univ tooth rest, and wheel is Diamond cup wheel.



7. 滾齒刀研磨
Sharpening gear hob held on C2T12 fixture with a AB01-AB04 arbor, C2R2 plain tooth rest is indexed against index disc.



8. 鋸片研磨
Sharpening circular saw blade held on C1SG attachment.



9. 鑽頭、牙攻、銑刀多功能研磨
Drill, tap, end mill grinder

特別附件 Special Accessories

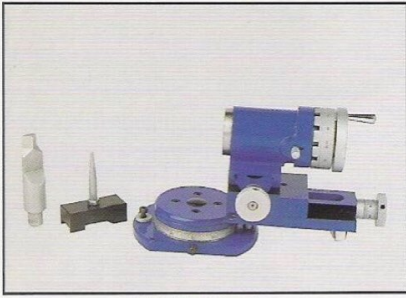


CT-U2-1:U2專用工具櫃
Tool cabinet with CT-U2

C3412:205,610增高底座
Machine floor stand with CT-205,610



特別附件 Special Accessories



1.C1RG R 端銑刀研磨座
Radius attachment



2.C2SH 銑刀研磨座
Sensitive work head B&S taper
No.11(with AK-24 index disc)



3.C2LH 車刀研磨座
Work holding fixture



4. C3RG:ER沖子研磨座
ER collet dividing punch grinder
attachment



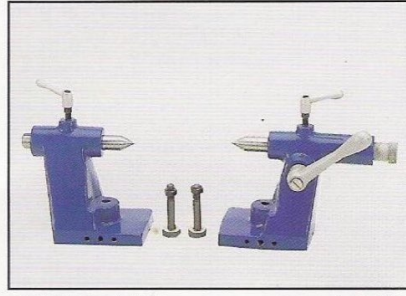
5.C2SF 平面銑刀研磨座
Sensitive work head NT#50 taper
with AK-24 index disc



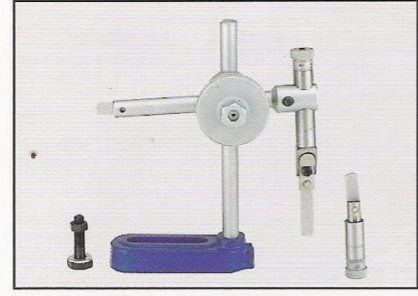
6.C2AH 端銑刀研磨座
End mill grinder. Air bearing fixture
5C, 5C collet taper



7.C1SG 鋸片研磨座
Circular saw blade grinder attachment
(up to 508mm(20") dia.)



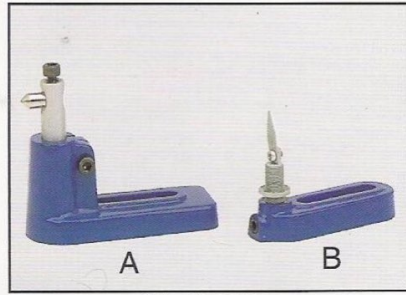
8.C2T12 尾座 CT-610專用
Tailstock(Left &Right) with CT-610



9.C2R1 萬向刀刃引導桿
Universal tooth rest (a:mm. b:inch)



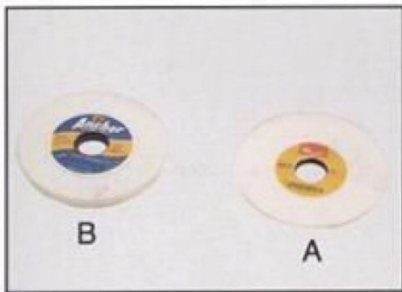
10. C1DG(D):多功能研磨座
Universal grinder attachment



11.A:C2D1 鑽石修整器
Diamond dresser
B:C2R2 頂針座
Plain tooth rest



12.5C collet 5C 筒夾
5C collet to fit AC01 collet sleeve and C2AH air
bearing fixture.
5C: 5/16", 3/8", 1/2", 5/8", 3/4", 1", 1 1/4" (7pcs.)
5CM: 6, 8, 10, 12, 16, 20, 25mm (7pcs.)



13.A:AW10 碟形砂輪
Saucer wheel. (150x13x31.75mm)
B:5112-706 平直砂輪
Straight wheel. (150x13x31.75mm)



14.AW101 6" 鑽石砂輪
6" Diamond cup wheel. (150x50x31.75mm)
AW102 4" 鑽石砂輪
4" Diamond cup wheel.(100x50x31.75mm)



15.AF01B 4" 三爪夾頭
4" Adjustable 3-jaw chuck mounted on B&S No.11 taper arbor. (C2SH, C2TH)



16.INDEX DISCS 分度盤
To fit C2SH&C2SF sensitive work head and AB01-04 cutter & hob grinding arbors. Available for AK24,30,32,36,40,42,44,46, 48 and 60 divisions.



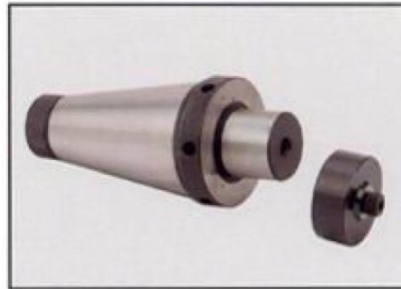
17.COLLET FIXTURE 筒夾夾具
AC01A for changing C2SH from B&S No.11 taper to accept 5C collet.
AC01C for changing C2TH from B&S No.11 taper to accept 5C collet.



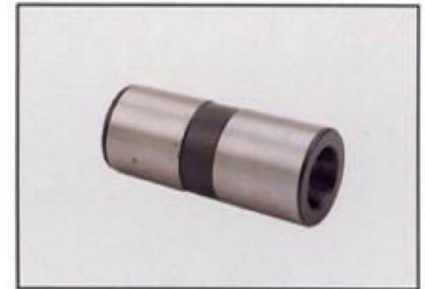
18.TAPER SLEEVES 斜度套筒
5C collet taper O.D. set-up on AC01 collet sleeve and C2AH air bearing fixture spindle
AC07 No.3 MT TAPER I.D.
AC08 No.2 MT TAPER I.D.
AC09 No.1 MT TAPER I.D.



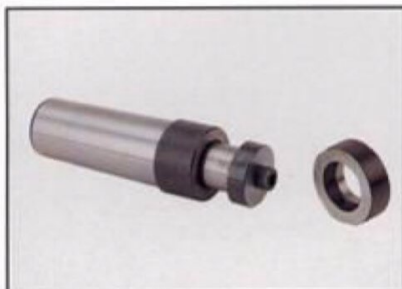
19.TAPER ARBOR 聯結軸
5C collet taper O.D. set-up on AC01 collet sleeve and C2AH air bearing fixture spindle.
AC27 J6 TAPER O.D.



20.ARBOR 刀桿 (to be used with C2SF)
Sharpening face milling cutters arbors NT#50 taper O.D.(see picture above)
AA20 1 1/2"
AA21 2"
AA25 40mm
AA26 60mm



21.TAPER SLEEVES 錐度襯套
B&S No.11 taper O.D.These sleeves can be used on all types of cutters with taper shanks.
AC20 4MT I.D. AC22 2MT I.D.
AC21 3MT I.D. AC23 1MT I.D.



22.ARBORS 刀桿
Shell end mill and cutter arbor B&S No.11 taper O.D. specially designed to sharpen O.D. and face of shell type milling cutters.
AA01 1/2" Arbor AA10 13mm
AA02 5/8" Arbor AA11 16mm
AA03 3/4" Arbor AA12 22mm
AA04 7/8" Arbor AA13 27mm
AA05 1" Arbor AA14 32mm
AA07 1 1/2" Arbor



23.CUTTER AND HOB GRINDING (to be used with C2T12) 刀桿及襯套
AB01 1/2" Arbor AB03 13mm Arbor
AB02 1" Arbor AB04 27mm Arbor
AB05 3/4" Sleeve AB10 16mm Sleeve
AB06 7/8" Sleeve AB11 22mm Sleeve
AB07 1 1/4" Sleeve AB12 32mm Sleeve
AB08 1 1/2" Sleeve AB13 40mm Sleeve
AB09 2" Sleeve



24.STRAIGHT SLEEVES 5C 直柄套筒
5C collet taper O.D. set-up on AC01 collet sleeve and C2AH air bearing fixture spindle
AC25 1 1/4" I.D. AC26 32mm I.D.
A45 1 1/2" I.D. AC28 40mm I.D.
A46 2" I.D. A51 50mm I.D.

規格 Specification

機型	CT-205	CT-305	CT-457	CT-610
頂針距離 Distance between center	270mm 10.5"	380mm 15.6"	405mm 16"	250mm 10"
工作台面積 Working table area	130x550mm 5.1"x21"	110x675mm 4.3"x26.6"	120x700mm 4.7"x27.6"	133x470mm 5.2"x18.5"
工作台左右行程 Longitudinal travel of table	200mm	305mm	420mm	250mm
工作物最大有效直徑 Swing over table	280mm 11.2"	280mm 11.2"	280mm 11.2"	208mm 8"
工作台前後行程 Cross travel of saddle	150mm 6"	150mm 6"	100mm 4"	160mm 6.3"
工作台旋轉角度 Swivel adjustment of table	0°	45°	15°	0°
砂輪頭上下行程 Vertical adjustment of wheel	290mm 11.4"	160mm 6.4"	150mm 6"	190mm 7.5"
立柱旋轉角度 Swivel adjustment of column	360°	360°	360°	360°
砂輪頭傾斜角度 Vertical tilting range wheel head	360°	30°	30°	360°
砂輪尺寸 Diameter of wheel	Saucer wheel 150mm(6") Flaring cup 125mm(5")	150mm(6") 125mm(5")	150mm(6") 150mm(5")	150mm(6") 150mm(5")
砂輪轉速 Speed of wheel	50Hz 2850rpm 60Hz 3450rpm	2850rpm 3450rpm	2850rpm 3450rpm	2850rpm 3450rpm
馬達 Motor	1PH 1/3HP,110~240V 3PH 1/3HP,220~460V	1/2HP,110~240V 1/2HP,220~460V	1/2HP,110~240V 1/2HP,220~460V	1/3HP,110~240V 1/3HP,220~460V
裝箱尺寸 (LxWxH) Measurement	720x610x880mm 28.4"x24"x34.7"	940x930x1600mm 37"x36.6"x63"	870x750x1300mm 34.2"x29.5"x51"	762x686x762mm 30"x27"x30"
重量 Weight	淨重 N.W. 160kg 毛重 G.W. 200kg	N.W. 320kg G.W. 400kg	N.W. 220kg G.W. 260kg	N.W. 125kg G.W. 160kg

* 本公司隨時在進行研究改進，因此保有隨時更改設計規格尺寸及機械結構之權利。

※Note: The manufacturer reserves the right to modify the design, specifications, mechanisms,...etc. to improve the performance of the machine without notice. All the specifications shown above are just for reference.



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