



鎂佳機械工業股份有限公司
MEGA MACHINE CO.,LTD.

台灣 · 41154 台中市太平區工業路180號
No.180, Industrial Road, Tai-ping District, Taichung City, 41154, Taiwan R. O. C.
www.bandsaw.com.tw
Tel: +886-4-22712877 (Rep.) Fax: +886-4-22715016
E-Mail: sales@bandsaw.com.tw



Official Website



www.bandsaw.com.tw



THRU-FEED & IN-FEED HYDRAULIC
HEAVY DUTY THREAD ROLLING MACHINE
重型滾通 / 固定兩用 精密油壓滾牙機

Keep Improving & Quality Oriented - Skillful engineering and imaginative design give every MEGA Thread Roller exceptional Rolling capacity.
不斷創新與精進 & 嚴格執行品質要求 - 以操作者為出發點的設計, 並追求完美的品質

2018.02 11/16 8:55-4-2298-5069



THRU-FEED & IN-FEED HYDRAULIC HEAVY DUTY THREAD ROLLING MACHINE

Thread rolling with two rolling dies in thread rolling machine is an effective cold forging process and forms the fibres of the metal instead of cutting it. The advantage of this process is not only the most rapid and accurate method of producing commercial screw threads in mass production but also with greater tensile strength, shear strength and resistance to wear than threads produced by cutting process.

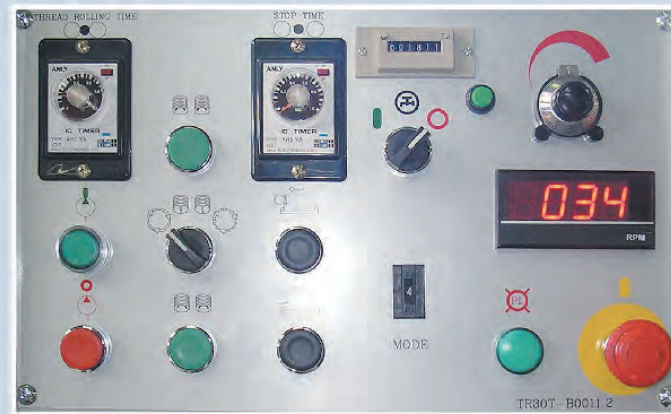
MEGA endeavors to keep up with up-to-date advanced technologies in design / modifying their thread rolling machines to meet the demand of automotive industry, machinery industry and many other industries' requirements.

All the advantages of cold forming are embodied by MEGA THREAD ROLLING MACHINES, such as uninterrupted grain flow material and surface consolidation, bright surface finish and substantial saving in production times. The nominal diameter, pitch, and thread form are closely related when thread rolling is concerned.

The machines illustrated in this leaflet are only a sample of the complete range of thread rolling machines made by MEGA. Please ask for full details of a model suited to your particular thread rolling requirements.

重型滾通 / 固定兩用精密油壓滾牙機

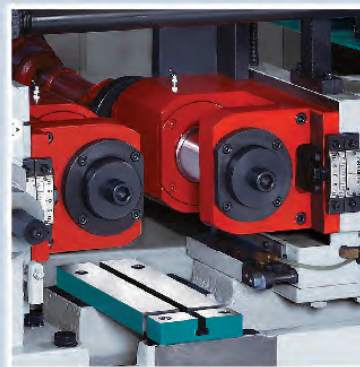
滾牙機使用二個滾牙輪滾製螺絲，乃以有效的冷鍛鑄過程取代車製或銑製切割方式使螺紋成形。此種製程益處不僅能更迅速，精確的大量生產螺絲，而且比以切割方式所生產的車銑製螺紋有更高的抗張 / 抗剪強度的耐磨耗性，此乃因為滾製的螺絲是以金相結晶的流動所形成，內部組織更形細密紮實，表面光滑硬度提高，而且節省材料，無切屑，大幅降低加工時間成本。螺紋滾製與螺紋的外徑、牙距、牙型有密切關聯，如何選用適宜之機種與搭配滾牙輪來作業，敬請詳洽敝廠或本公司之代理商。



Control panel (with stepless variable speed for rolling die spindles) that provides easier operation and smooth rolling for different kinds of threads / gear forms and materials.

控制面板

附滾軸變頻式無段變速-提供簡易快速操作，便利滾製各種不同形狀螺紋、齒形和不同材質的另件。



Quick thread pitch matching
快速對牙裝置



Working area light
工作區照明燈



Powerful hydraulic system and easy adjustment for rolling different kinds of jobs.

強力油壓系統和簡易調整便利滾製各種不同形狀螺紋、齒形和不同材質的另件。

Specification subject to change without notice for improvement and modification.
由於不斷地研究改進，本公司保有變更設計之權利。

TR-80T. TR-50T

The Mega's heaviest thread / profile forming machine at the moment equipped with swivelable roller shafts. Which ensures optimum capacity and use in making threads and axially parallel profiles in the through-feed process. However, short cylindrical parts (especially thread pins) can also be rolled in the through-feed process. For this special through-feed process, automatic feed of the work is necessary.

This machine can also be used in the in-feed process with parallel die axes, the length of the profile to be rolled depends on the width of the rolling dies, there is no axial movement of the workpiece.

Design characteristics:

- Swivelable roller shafts at full utilization of the rolling force. Short working cycles by increasing the forward-return speed.
- Increased driving power provides optional uses in slow normal and rapid motions by hydraulic multi-circuit system. Increase in efficiency and improvement of utilization of power by gears on parallel axes and driven by universal shaft.
- Free passage between the roller shafts for the manufacturing any length of profiles.



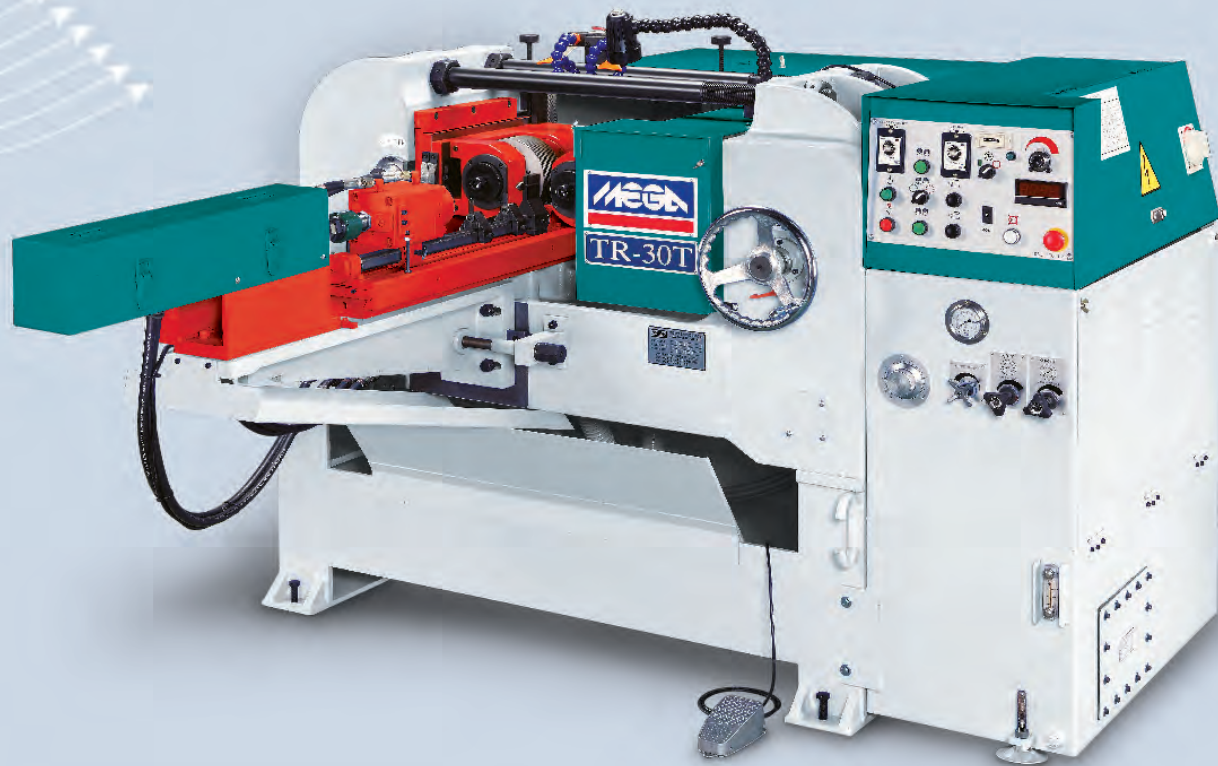
SPECIFICATIONS 規範名稱	ITEM 項目	TR-80T 機型	TR-50T 機型
Range of Thread 滾輪加工範圍	Max. diameter 參考最大外徑	ø100mm	ø100mm
	Min. diameter 最小外徑	ø10mm	ø10mm
	Range of length (In-feed) 定長滾製範圍	5-300mm	5-300mm
	Range of length (thru-feed) 滾通滾製範圍	Free 無限	Free 無限
	Pitch 節距範圍	0.6-10mm	0.6-10mm
Speed Range 滾輪轉速		5-60 R.P.M (Standard)	
Rolling Dies 滾輪規格	Max. diameter 外徑	ø240mm	240mm
	Bore diameter 內徑	ø110mm	110mm
	Width range 厚度	50~300mm	50~300mm
	Key way 鍵槽	25mm	25mm
Distance of Dies Spindle 滾輪軸間距離	Max. diameter 最大距離	360mm	360mm
	Min. diameter 最小距離	210mm	210mm
Max. Rolling Pressure 最大滾製壓力		80Tons	50Tons
Main Power 滾輪傳動馬力		30HP(22KW)	20HP(15KW)
Hydraulic Power 油壓系統馬力		7.5HP(5.6KW)	7.5HP(5.6KW)
Coolant Power 冷卻幫浦馬力		1/2HP(0.37KW)	1/2HP(0.37KW)
Height from Floor to Spindle Center 地面至滾輪中心高度		1030mm	1030mm
Floor Space Required 佔地面積		2680L x 2040W mm	2680L x 2040W mm
Over Height 機械總高		1860mm	1860mm
Weight 機械重量	Net weight 淨重	8500Kgs	8500Kgs
	Gross weight 毛重	8650Kgs	8650Kgs

TR-30T . TR-18T

The Mega's heavier thread / profile forming machine at the moment equipped with swivelable roller shafts. Which ensures optimum capacity and use in making threads and axially parallel profiles in the through-feed process. However, short cylindrical parts (especially thread pins) can also be rolled in the through-feed process. For this special through-feed process, automatic feed of the work is necessary. This machine can also be used in the in-feed process with parallel die axes, the length of the profile to be rolled depends on the width of the rolling dies, there is no axial movement of the workpiece.

Design characteristics:

- Swivelable roller shafts at full utilization of the rolling force. Short working cycles by increasing the forward-return speed.
- Increased driving power provides optional uses in slow normal and rapid motions by hydraulic multi-circuit system. Increase in efficiency and improvement of utilization of power by gears on parallel axes and driven by universal shaft.
- Free passage between the roller shafts for the manufacturing any length of profiles.



SPECIFICATIONS	規範名稱	ITEM	項目	TR-30T 機型	TR-18T 機型
Range of Thread	滾輪加工範圍	Max. diameter	參考最大外徑	ø70mm	ø60mm
		Min. diameter	最小外徑	ø6mm	ø6mm
		Range of length (in-feed)	定長滾製範圍	5-150mm	5-150mm
		Range of length (thru-feed)	滾通滾製範圍	Free 無限	Free 無限
		Pitch	節距範圍	0.6-6.3mm	0.6-4mm
Speed Range	滾輪轉速	5-60R.P.M.(Standard) 50-105R.P.M.(Optional) 3 steps with variable speed.	標準配備 TR-30T · TR-18T 特殊配備 TR-18T (optional) 3檔位搭配變頻器作無段變速(選配)		
Rolling Dies	滾輪規格	Max. diameter	外徑	ø180mm	ø150mm
		Bore diameter	內徑	ø70mm	ø54mm
		Width range	厚度	50-150mm	50-150mm
		Key way	鍵槽	14mm	12mm
Distance of Dies Spindle	滾輪軸間距離	Max. diameter	最大距離	250mm	210mm
		Min. diameter	最小距離	145mm	130mm
Max. Rolling Pressure	最大滾製壓力			30Tons	18Tons
Main Power	滾輪傳動馬力			15HP(11.25KW)	10HP(7.5KW)
Hydraulic Power	油壓系統馬力			5HP(3.75KW)	3HP(2.2KW)
Coolant Power	冷卻幫浦馬力			1/4HP(0.18KW)	1/4HP(0.18KW)
Height from Floor to Spindle Center	地面至滾輪中心高度			1000mm	997mm
Floor Space Required	佔地面積			1750Lx1840W mm	1850Lx1550W mm
Over Height	機械總高			1320mm	1260mm
Weight	機械重量	Net weight	淨重	3200Kgs	2100Kgs
		Gross weight	毛重	3350Kgs	2250Kgs

TR-10T . TR-5T

The Mega's economy thread / profile forming machine at the moment equipped with swivelable roller shafts. Which ensures optimum capacity and use in making threads and axially parallel profiles in the through-feed process. However, short cylindrical parts (especially thread pins) can also be rolled in the through-feed process. For this special through-feed process, automatic feed of the work is necessary.

This machine can also be used in the in-feed process with parallel die axes, the length of the profile to be rolled depends on the width of the rolling dies, there is no axial movement of the workpiece.

Design characteristics:

- Swivelable roller shafts at full utilization of the rolling force. Short working cycles by increasing the forward-return speed.
- Increased driving power provides optional uses in slow normal and rapid motions by hydraulic multi-circuit system. Increase in efficiency and improvement of utilization of power by gears on parallel axes and driven by universal shaft.
- Free passage between the roller shafts for the manufacturing any length of profiles.



SPECIFICATIONS 規範名稱		ITEM 項目	TR-10T 機型	TR-5T 機型
Range of Thread 滾輪加工範圍	Max. diameter 參考最大外徑		ø60mm	ø50mm
	Min. diameter 最小外徑		ø5mm	ø2mm
	Range of length (in-feed) 定長滾製範圍		5-70mm	5-50mm
	Range of length (thru-feed) 滾通滾製範圍		Underø35: Free / Fromø35-ø50: Within 300L ø35以內: 無限 / ø35-ø50: 300長	Underø35: Free / Fromø35-ø50: Within 300L ø12以內: 無限 / ø12-ø50: 300長
	Pitch 節距範圍		0.6-2.5mm	0.25-2mm
Speed Range 滾輪轉速	5-60R.P.M.(Standard) 標準配備 TR-10T, TR-5T 50-105R.P.M.(Optional) 特殊配備 TR-10T			
Rolling Dies 滾輪規格	Max. diameter 外徑		ø130mm	ø100mm
	Bore diameter 內徑		ø54mm	ø50.5mm
	Width range 厚度		70mm	50mm
	Key way 鍵槽		10mm	8mm
Distance of Dies Spindle 滾輪軸間距離	Max. diameter 最大距離		190mm	150mm
	Min. diameter 最小距離		100mm	100mm
Max. Rolling Pressure 最大滾製壓力			10Tons	5Tons
Main Power 滾輪傳動馬力			7.5HP(5.6KW)	2HP(1.5KW)
Hydraulic Power 油壓系統馬力			3HP(2.2KW)	2HP(1.5KW)
Coolant Power 冷卻幫浦馬力			1/8HP (0.09KW)	1/8HP (0.09KW)
Height from Floor to Spindle Center 地面至滾輪中心高度			820mm	743mm
Floor Space Required 佔地面積			1230Lx1373W mm	1215Lx1161W mm
Over Height 機械總高			1140mm	1042mm
Weight 機械重量	Net weight 淨重		1200Kgs	1000Kgs
	Gross weight 毛重		1350Kgs	1150Kgs

PR-30A . PR-60A

This machine is designed for the thread/ profile forming on the thin pipes / tubes, equipped with 3 same size rolling shafts needs 3 pieces of rolling dies while rolling. These three shafts are swivelable to ensure optimum capacity and use in making threads and axially parallel profiles in the through-feed process. However, short cylindrical parts (especially thread pins) can also be rolled in the through-feed process.

For this special through-feed process automatic feed of the work is necessary. This machine can also be used in the infeed process with parallel axes, and the length of the profile to be rolled depends on the width of the rolling dies, which has no axial movement of the workpiece.

Tapered pipe thread (PT, FT series) forming are most common applications by this machine.



SPECIFICATIONS 規範名稱	ITEM 項目	PR-30A 機型	PR-60A 機型
Range of Thread 滾輪加工範圍	Max. diameter 參考最大外徑	ø30mm	ø60mm
	Min. diameter 最小外徑	ø10mm	ø18mm
	Range of length (In-feed) 定長滾製範圍	20mm	50mm
	Range of length (thru-feed) 滾通滾製範圍	Free無限	Free無限
	Pitch 節距範圍	0.5-2.5mm	0.75-4mm
Speed Range 滾輪轉速		200-650 R.P.M.	130-450 R.P.M.
Rolling Dies 滾輪規格	Max. diameter 外徑	ø80mm	ø120mm
	Bore diameter 內徑	ø25.4mm	ø40mm
	Width range 厚度	40mm	50mm
	Key way 鍵槽	6.35mm	8mm
Distance of Dies Spindle 滾輪軸間距離	Max. diameter 最大距離	130mm	210mm
	Min. diameter 最小距離	50mm	90mm
Max. Rolling Pressure 最大滾製壓力		10Tons	20Tons
Main Power 滾輪傳動馬力		1.5KW	3.75KW
Hydraulic Power 油壓系統馬力		0.75KW	2.2KW
Coolant Power 冷卻幫浦馬力		1/8HP (0.09KW)	1/8HP (0.09KW)
Height from Floor to Spindle Center 地面至滾輪中心高度		850mm	950mm
Floor Space Required 佔地面積		1080Lx850W mm	1250Lx1250W mm
Over Height 機械總高		1400mm	1450mm
Weight 機械重量	Net weight 淨重	550Kgs	1150Kgs
	Gross weight 毛重	750Kgs	1400Kgs

Optional Accessories

選配附件



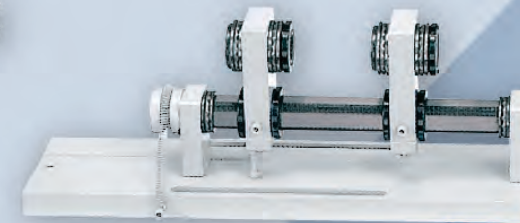
Coolant Cooler (by Air) & Filter
冷卻風排及濾油器



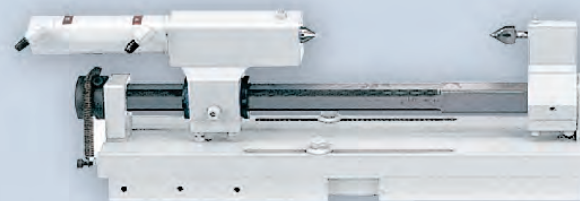
Cooling Chiller
冷凍機



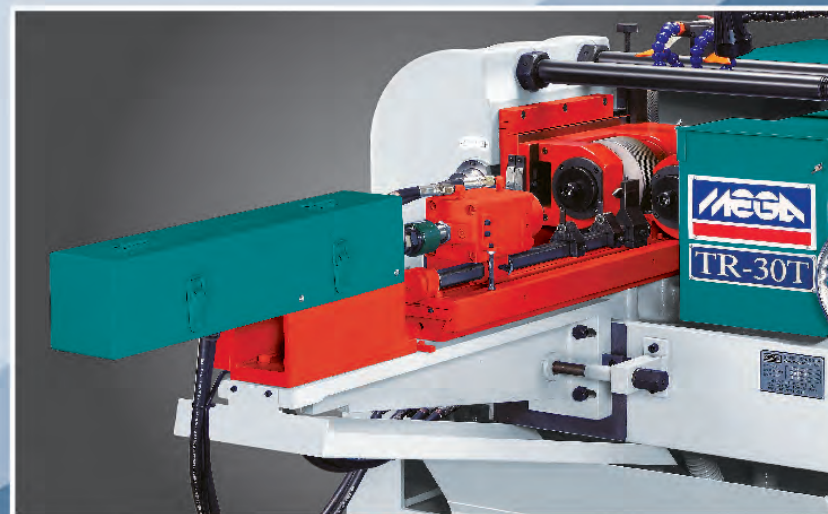
Movable Centering Work Rest Device
移動式滾製中心台



Bush Type Work Rest Device
襯套式滾製中心台



Standard Centering Work Rest Device
固定式滾製中心台



Gear / spline shaft rolling device. (optional)
齒輪 / 方栓槽滾製配件-選購配件

Optional Accessories

選配附件



滾輪型式(Type of Thread / Gear)

滾輪訂購規範表 (Rolling Dies Specification)

採購代號 (Order Code)	名稱 (Name)	圖示 (Description)
RD1	尖型螺紋滾輪 (Standard 60°/55° Tread)	查看細節 DETAIL 刻度: 2.000
RD2	梯型螺紋滾輪 (ACME29°/30°/40°)	查看細節 DETAIL 刻度: 2.000
RD3	滾珠螺紋滾輪 (Ball Screw)	
RD4	固定齒配合滾輪 (Spline / Gear/90° Knurled Gear)	
RD5	直線壓花滾輪 (Straight knurled Gear)	
RD6	十字線壓花滾輪 (Diamond Knurled Gear)	



Roller Type Work Rest Blades
滾輪式支持片



Carbide Type Work Rest Blades
碳化鎢支持片

滾輪使用條件與選擇 (Type of Rolling Method)

螺紋滾輪可區分為以下四種型式，用途分別敘述如下 (There are 4 Types as Follows)

採購代號 (Order Code)	滾輪製作選擇 (type)	條件使用 (Applications)
IF	固定滾輪 (In-Feed)	此型滾輪適用於滾製螺紋，長度比機械可裝置滾輪長度還短之工件。 (The Length of thread on the parts short then the Max. Width of the Rolling Dies)
RF	退開滾通滾輪 (Retreat-Feed)	此型滾輪適用於滾製螺紋長度，比機械可裝置滾輪長度還長，但又沒有整支滾製之工件。 (For Rolling Step / Collar Shaft Screws)
TF	不退開滾通滾輪 (Thru-Feed)	此型滾輪適用於滾製，整支工件都需求螺紋，不論工件外徑之大小或長短都適用。 (For Rolling Long Screws, Parts Without Heads)
TR	差速通滾通滾輪 (Thrust-Rolling)	此型滾輪適用於滾製，工件螺紋精度要求極高，螺帽配合度不能有鬆緊現象之狀況，可選用此型滾輪。 (For Rolling Precise Threads / Gears and Multiple Thread (Long Lead) Screws)

滾輪訂購格式 (Rolling Dies Order Format)

滾輪訂購時請提供下列條件 (While Ordering Rolling Dies, Please Specify it as Bellows)

機器廠牌與機型 (Brand and Type of Machine)	<input type="checkbox"/> MEGA	<input type="checkbox"/> 其它(Other)
滾輪外觀尺寸 (Dimensions of Rolling Dies)	A: _____ B: _____ C: _____ D: _____ E: _____	A B C D E
滾輪型式 (採購代號) (Type of Rolling Method)	請勾選 (USE <input checked="" type="checkbox"/>) <input type="checkbox"/> RD1 <input type="checkbox"/> RD2 <input type="checkbox"/> RD3 <input type="checkbox"/> RD4 <input type="checkbox"/> RD5 <input type="checkbox"/> RD6 <input type="checkbox"/> 其它 (Other)	
製作方式 (採購代號) (Type of Rolling Method)	請勾選 (USE <input checked="" type="checkbox"/>) <input type="checkbox"/> IF <input type="checkbox"/> RF <input type="checkbox"/> TF <input type="checkbox"/> TR	
螺紋規格 (Specification of Thread / Gear)	節距 (Pitch): _____	導角 (Lead Angle): _____
滾製工件材質(Work Material)		
公司 (Company): _____	電話 (Tel): _____	傳真(Fax): _____
地址 (Address): _____	連絡人 (Representative): _____	