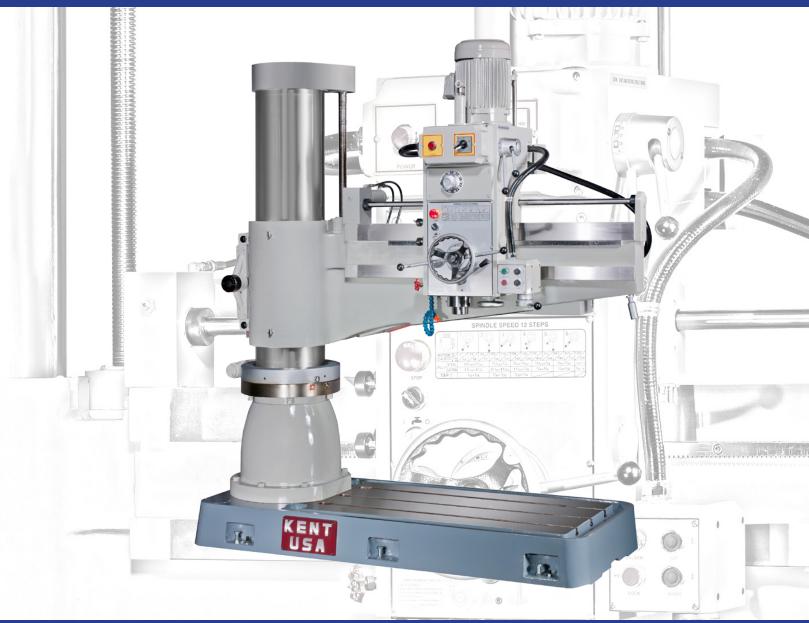


# Precision Radial Arm Drills



TPR-720A · TPR-820A · TPR-920A · TPR-1100 · TPR-1230 · TPR-1250A · TPR-C1600 · TPR-1600H · TPR-C2500



## TPR-720A-1100 / 1230 / 1230H

- Adopts mechanic switch with forward / reverse functions and longer service life with low damage.
- The arm is made of high-class cast-iron. Arm slide is under stick heat-treatment and grinding.
- 2HP motor can provide diverse speed selection under heavy-duty cutting.
- The main spindle is balanced by special spring. And is more durable than all traditional balance mechanism.
- The overload protective devices can secure the operator against injury.
- Extra auxiliary dial for spindle feed dept indication. With this indicator, we can revice the momental feel depth of spindle 1mm through 210mm at any moment.



## TPR-C1250A / C1600 / 1600H



**TPR-2000H** 

The Radial Drill Arm adopts IC timer with advantage of one bottom press, it can automatically release up and vertical down, stop, and automatically clamping easy to operate. The spindle can still maintain in original set after the tool change.

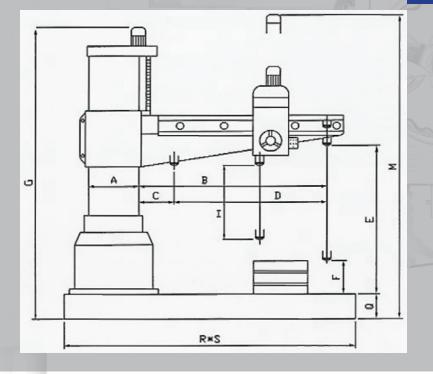
- Exclusively for gears type cycling oil pump is furnished to cool off precise gears inside gear box, and minimize excessive wear on gears to lowest extent.
- Friction type disc clutch is adopted to absorb impact force caused by vertical movement of spindle, and effectively protect all transmission until inside gear box. With the function of quick spindle return, this clutch will also help us to speed up our taping operation.
- Special arm elevating safety device is provided to prevent arm from falling down abruptly after year of usage. It will keep us from injurious dropping whenever the copper nut is excessively worn.
- Equipped with hydraulic step by step clamping system, with proper selection on push button switch, column, arm, gear box can be clamped / released independently. (Suitable for TPR-C1250A/C1600)
- Free speed preselection, speed change is hydraulically actuated. Fast and very easy to be operated. (Suitable for TPR-C1250A / C1600)
- Special automatic tool eject device is supplied to enable us to shift tools efficiently. (Suitable for TPR-1600H)



### **TPR-C2500**

- The Radial Drill Arm adopts IC timer with advantage of one bottom press, it can automatically release up and vertical down, stop, and automatically clamping easy to operate. The spindle can still maintain in original set after the tool change.
- Exclusively for gears type cycling oil pump is furnished to cool off precise gears inside gear box, and minimize excessive wear on gears to lowest extent.
- Friction type disc clutch is adopted to absorb impact force caused by vertical movement of spindle, and effectively protect all transmission until inside gear box. With the function of quick spindle return, this clutch will also help us to speed up our tapping operation.
- Special arm elevating safety device is provided to prevent arm from falling down abruptly after year of usage. It will keep us from injurious dropping whenever the copper nut is excessively worn.
- The column, arm and gear box with advantage of independently or synchronous clamping / unclamping automatically or manual.





## **ACCESSORIES & DIMENSION**

#### STANDARD ACCESSORIES:

- 1. Adjustment tools (box included)
- 2. Cooling device (pimp included)
- 3. Lighting device (fluorescent lamp included)
- 4. Box-type work table

### **OPTIONAL TILT TABLES**

Uni-tilt table tilts a full 90-degrees. Calibrated indicator shows degree of tilt has accurately planed top.

### Dimensions (LxWxH)

- 810 x 710 x 610 m/m (Large size)
   Application: TPR-C1250A / C1600 / 1600H
- 510 x 510 x 590 m/m (Small size) Application: TPR-720A - 1600H

	Μ	ODEL	TPR-720A	TPR-820A	TPR-920A	TPR-1100	TPR-2500	LEGEND
Diameter of	of column			8.3in		10.2in	21.7in	А
Distance f	rom column s	surface to spindle center, Max	29.5in	33.5in	37.4in	43.3in	98.4in	D + C
Distance f	rom column s	surface to spindle center, Min		8.7in		11in	19.7in	С
Travel of s	spindle head		20.9in	24.8in	28.7in	32.3in	78.7in	D
Distance from base surface to spindle end, Max			41.7in	47.6in		50in	78.7in	E
Distance from base surface to spindle end, Min			10.2in	13.	8in	18.5in	21.7in	F
Elevating	height of arm		22.8in	25.2in		22.4in	39.4in	E-F-I
Effective a	area of box ta	ble		23.6 x 17.5 x 15 in		25 x 20.5 x 16.3 in	39.4 x 31.5 x 22 in	LxKxH
Dimension of base			49.6 x 25.2 x 6.3 in			67.9 x 28.15 x 7.1 in	138.6 x 55.1 x 12.6 in	R x S x Q
Taper hole spindle			MT #4			MT #4	MT #6	
Stroke of spindle			8.7in			9.1in	17.7in	I
RPM of spindle		88, 154, 282, 455, 796, 1500 x 6			44 - 1500 x 12	16 - 1250 x 16		
Feed of sp	oindle			0.05, 0.0	9, 0.15 x 3	<u></u>	0.04, 3.2 x 16	
Main motor			2HP			3HP	10HP	
Elevating motor			1HP			1HP	5HP	
Coolant ed	Coolant equipment			1/8HP			1/4HP	
Machine height from floor (Max)			85.4in	91.	3in	99.6in	157.1in	М
Base + co	ise + column height		72.8in	79.1in		78.7in	151.6in	G
Net weigh	t (approx) kgs	3	1120kgs	1200kgs	1250kgs	1800kgs	11000kgs	
Shipping v	weight (appro	x) kgs	1250kgs	1340kgs	1400kgs	1950kgs	12500kgs	
Shipping c	Shipping dimensions (LxWxH)			66.1 x 32.5 x 85 in 66.1 x 32.5 x 86.2 in			157.5 x 62.9 x 151.6 in	
	Deilling	Steel		32		42	80	
Conceitu	Drilling	Cast iron		50		55	100	
Capacity	Tapping	Steel	25			25	65	
		Cast iron	32			38	75	
					3.0			

	Μ	ODEL	TPR-1230	TPR-1230H	TPR-1250A	TPR-C1600	TPR-1600H	LEGEND
Diameter of column			11.8in		13.8in		17in	A
Distance from column surface to spindle center, Max			46.1in		49.2in	63in	62.2in	D + C
Distance from column surface to spindle center, Min		13.4in		13.8in		17.3in	С	
Travel of spindle head		35in		35.4in	49.2in	44.9in	D	
Distance from base surface to spindle end, Max		53.9in		48in		63in	E	
Distance from base surface to spindle end, Min			19.3in		13.4in		15in	F
Elevating height of arm			24.8in		22.2in		33.5in	E-F-I
Effective area of box table			25 x 20.5 x 16.3 in		25 x 19.7 x 19.7 in		27.6 x 19.7 x 15.7 in	LxKxH
Dimension of base			67.9 x 28.15 x 7.1 in		79.9 x 38.6 x 8 in	93.7 x 38.6 x 8 in	97.6 x 41.3 x 8.3 in	R x S x Q
Taper hole spindle			MT #4		MT #5		MT #5	
Stroke of spindle			9.8in		12.4in		14.6in	I
RPM of spindle			44 - 1500 x 12		25 - 2000 x 16		40 - 1920 x 12	
Feed of spindle			0.05, 0.09, 0.15 x 3		0.04 - 3.2 x 16		0.07 - 0.96 x 6	
Main motor			3HP		5HP		7 1/2HP	
Elevating motor			1HP		2HP		2HP	
Clamping motor			1HP		1HP		1HP	
Coolant equipment			1/8HP		1/8HP		1/8HP	
Machine height from floor (Max)			109in		110.6in		124.8in	М
Base + column height			81.1in		102.4in		104.7in	G
Net weight (approx) kgs			2100kgs		3000kgs	3500kgs	4600kgs	
Shipping weight (approx) kgs			230	0kgs	3540kgs	4100kgs	5100kgs	
Shipping dimensions (LxWxH)			80.1 x 39	.2 x 88.2 in	88 x 48 x 100 in	102 x 48 x 100 in	112.2 x 55.1 x 115.7 in	
Capacity	Drilling	Steel	42		50		65	
		Cast iron	55		60		70	
	Tapping	Steel	25		45		50	
		Cast iron	38		55		60	



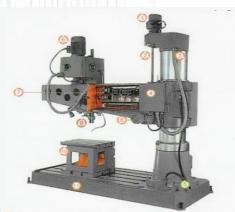


(3) P/B Switch for Arm Lifting (4) P/B Switch for Arm Lowering (5) Selector for Step Clamping (6) Emergency Stop (7) P/B Switch for Clamping (8) P/B Switch for Unclamping (9) Lever for Spindle Hydraulically Forward / Reverse Turn (10) Control Lever for Clutch (11) Handwheel for Fine Feed (12) Knob for Spindle Speed Selection (13) Knob for Feed Rate Selection (14) Horn for Auto and Manual Feed (15) Handwheel for Hand Horizontal Movement (16) Regulator for Feed Depth Selection and Fine Adjustment (17) Dial for Feed Depth Indication (18) Spindle (19) Slight Glass (20) Oil Level Sight Glass (21) Slight Glass for Lube Check (22) Work Light (23) Switch for Coolant Water

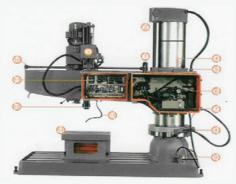
(1) P/B Switch for Spindle Start(2) P/B Switch for Spindle Stop



(1)(2) Structure of Feed Lever
(3) Ejecting Lever
(4) Horn
(5) Cross Switch
(6) Swing Lever
(7)(8) Change Lever
(9) HL Change Lever
(10) Limit Handwheel
(11) Machine Oil Indicator
(12) Green Release Button
(13) Red Clamp Button



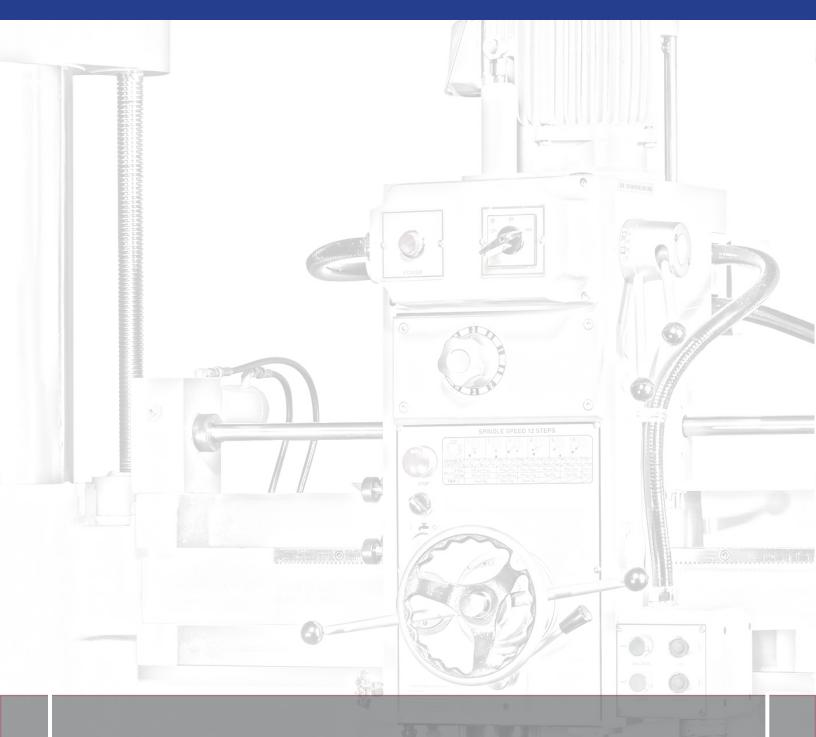
- (1) Elevating Motor (2HP)
- (2) Lead Screw
- (3) Column
- (4) Hydraulic Flow Distributing Valve
- (5) Coolant Pump (1/8HP)
- (6) Main Motor (5HP)
- (7) Electric Control Unit
- (8) Hydraulic Pump Motor (1HP)
- (9) Spindle
- (10) Plain Box Table
- (11) Base



(1) Oil Cylinder Base for Fasten & Loosen Gear Box

- (2) Leading Screw
- (3) Spinding Weight Counter Balance Unit
- (4) Limit Switch, Upper
- (5) Special Arm Raising Safety Device
- (6) Hydraulic Control Unit
- (7) Limit Switch, Lower
- (8) Hydraulic Cylinder
- (9) Coolant Pump
- (10) Leader for Fasten & Loosen Gear Box
- (11) Electric Control Unit
- (12) Spindle & Quill
- (13) Coolant Nozzle
- (14) Plain Box Table







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