



Precision Radial Drills

TPR-720A TPR-820A
TPR-920A TPR-1100
TPR-1230 TPR-C1250A
TPR-C1600 TPR-C1600
TPR-1600H TPR-C2500

**KENT
USA**

Kent Industrial USA

Delivering Value, Service, and Quality Since 1979



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 strick 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 over-load protective devices can secure the operator against injury.
- ☛ Extra auxiliary dial for spindle feed depth indication. With this indicator, we can review the momental feed depth of spindle 1through 210mm at any moment.

TPR-720A



TPR-820A



TPR-920A



TPR-1100



TPR-1230



TPR-1230H



C1250A/ C1600/ 1600H

- ☛ 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 tools 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 unit 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.
- ☛ 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 id 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)

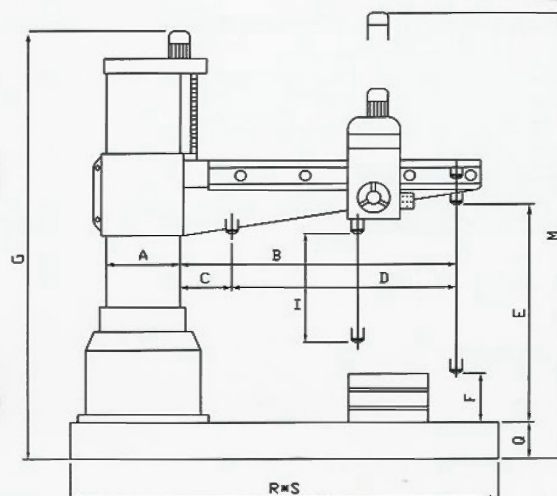
C2500

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- ④ 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.
- ④ The Column, arm, and gear box with advantage of independently or synchronous clamping/unclamping automatically or manual.
- ④ Free speed preselection, speed change id hydraulically actuated. Fast and very easy to be operated.

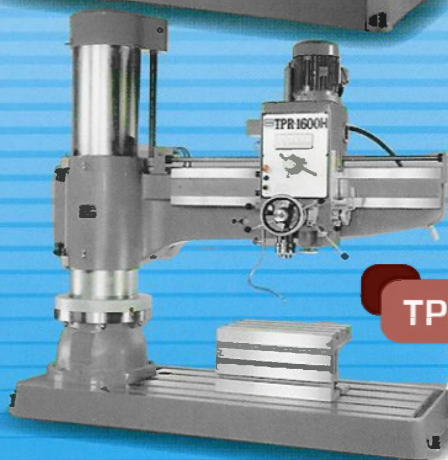
TPR-C2500



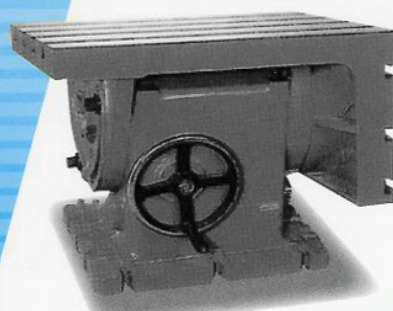
TPR-C1250A



TPR-C1600



TPR-1600H



Standard accessory:

- Adjustment tools (box included)..... 1 set
- Cooling device (pump included)..... 1 set
- Lighting device (fluorescent lamp included)..... 1 set
- Box-type Work Table..... 1 set

Special Optionals/Tilt Tables

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

Dimensions (L x W x H)

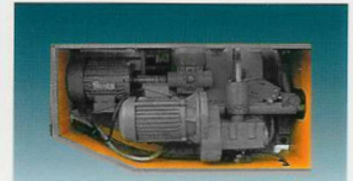
- ① 810*710*610 m/m (Large size)
Application:TPR-C1250A/C1600/1600H
- ② 510*510*590 m/m (small size)
Application:TPR-720A-1600H

MODEL			TPR-720A	TPR-820A	TPR-920A	TPR-1100	TPR-C2500	
Dai.of column			210			260	550	A
Distance from column surface to spindle center, Max			750	850	950	1100	2500	D+C
Distance from column surface to spindle center, Min			220			280	500	C
Travel of spindle head			530	630	730	820	2000	D
Distance from base surface to spindle end, Max			1060	1210		1270	2000	E
Distance from base surface to spindle end, Min			260	350		470	550	F
Elevating height of Arm			580	640		570	1000	E-F-I
Effective area of box table			600x445x380			635x520x415	1000x800x560	LxKxH
Dimension of base			1260x640x160			1725x715x180	3520x1400x320	RxSxQ
Taper hole spindle			MT#4			MT#4	MT#6	
Stroke of spindle			220			230	450	I
R.P.M of spindle (rpm x steps)			88, 154, 282, 455, 796, 1500x6			44-1500x12	16-1250x16	
Feed of spindle (rev.x steps)			0.05, 0.09, 0.15x3			0.05, 0.09 ,0.15x3	0.04, 3.20 x16	
Main motor (HP)			2HP			3(two speed motor)	10HP	
Elevating motor (HP)			1HP			1HP	5HP	
Coolant equipment (HP)			1/8HP			1/8HP	1/4HP	
Machine height from floor (Max.)			2170	2320		2530	3990	M
Base + column height			1850	2010		2000	3850	G
Net weight (approx)kgs			1120(kg)	1200(kg)	1250(kg)	1800(kg)	11000(kg)	
Shipping weight (approx)kgs			1250(kg)	1340(kg)	1400(kg)	1950(kg)	12500(kg)	
Shipping dimensions (LxWxH)			1680x826x2160	1680x826x2190	1806x826x2190	1880x864x2210	4000x1600x3850	
Capacity	Drilling	Steel	32 Φ			42 Φ	80 Φ	
		Cast iron	50 Φ			55 Φ	100 Φ	
	Tapping	Steel	25 Φ			25 Φ	65 Φ	
		Cast iron	32 Φ			38 Φ	75 Φ	

MODEL			TPR-1230	TPR-1230H	TPR-C1250A	TPR-C1600	TPR-1600H
Dai.of column			300	350		432	A
Distance from column surface to spindle center, Max			1170	1250	1600	1580	D+C
Distance from column surface to spindle center, Min			340	350		440	C
Travel of spindle head			890	900	1250	1140	D
Distance from base surface to spindle end, Max			1370	1220		1600	E
Distance from base surface to spindle end, Min			490	340		380	F
Elevating height of Arm			630	565		850	E-F-I
Effective area of box table			635x520x415	635x500x500		700x500x400	LxKxH
Dimension of base			1725x715x180	2030x980x205	2380x980x205	2480x1050x210	RxSxQ
Taper hole spindle			MT#4	MT#5		MT#5	
Stroke of spindle			250	315		370	I
R.P.M of spindle (rpm x steps)			44-1500x12	25-2000x16		40-1920x12	
Feed of spindle (rev.x steps)			0.05 ,0.09 ,0.15X3	0.04-3.2X16		0.07~0.96x6	
Main motor (HP)			3(two speed motor)	5HP		71/2HP	
Elevating motor (HP)			1HP	2HP		2HP	
Clamping motor (HP)			1HP	1HP		1HP	
Coolant equipment (HP)			1/8HP	1/8HP		1/8HP	
Machine height from floor (Max.)			2780	2810		3170	M
Base + column height			2060	2600		2660	G
Net weight (approx)kgs			2100(kg)	3000(kg)	3500(kg)	4600(kg)	
Shipping weight (approx)kgs			2300(kg)	3540(kg)	4100(kg)	5100(kg)	
Shipping dimensions (LxWxH)			2035x995x2240	2235x1220x2540	2590x1220x2540	2850x1400x2940	
Capacity	Drilling	Steel	42 Φ	50 Φ		65 Φ	
		Cast iron	55 Φ	60 Φ		70 Φ	
	Tapping	Steel	25 Φ	45 Φ		50 Φ	
		Cast iron	38 Φ	55 Φ		60 Φ	



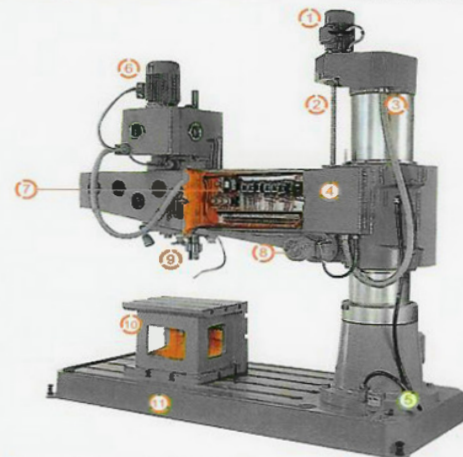
Hydraulic clamping/ TPR-1230H



Electric clamping/ TPR-1230



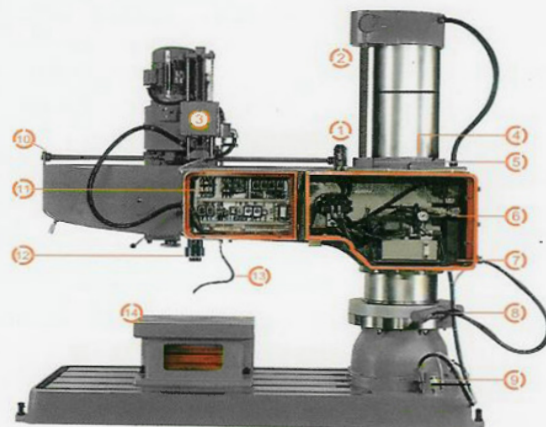
- ① P/B switch for spindle start
- ② P/B switch for spindle stop
- ③ P/B switch for arm lifting
- ④ P/B switch for arm lowering
- ⑤ Selector for step clamping
- ⑥ Emergency stop
- ⑦ P/B switch for clamping
- ⑧ P/B switch for unclamping
- ⑨ Lever for spindle hydraulically forward/reverse turn
- ⑩ Control lever for clutch
- ⑪ Hand wheel for fine feed
- ⑫ Knob for spindle speed selection
- ⑬ Knob for feed rate selection
- ⑭ Horn for auto and manual feed
- ⑮ Hand wheel for hand horizontal movement
- ⑯ Regulator for feed depth selection and fine adjustment
- ⑰ Dial for feed depth indication
- ⑱ Spindle
- ⑲ Sight glass
- ⑳ Oil level sight glass
- ㉑ Sight glass for lube check
- ㉒ Work light
- ㉓ Switch for coolant water



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|-------------------------------------|-----------------------------|
| ① Elevating motor(2HP) | ⑦ Electric control unit |
| ② Lead screw | ⑧ Hydraulic pump motor(1HP) |
| ③ Column | ⑨ Spindle |
| ④ Hydraulic flow distributing valve | ⑩ Plain box table |
| ⑤ Coolant pump(1/8HP) | ⑪ Base |
| ⑥ Main motor(5HP) | |



- ① ② Structure of feed lever
- ③ Ejecting lever
- ④ Horn
- ⑤ Cross switch
- ⑥ Swing lever
- ⑦ ⑧ Change lever
- ⑨ H.L change lever
- ⑩ Limit hand wheel
- ⑪ Machine oil indicator
- ⑫ Green, release button
- ⑬ Red, clamp button



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|--|---------------------------------------|
| ① Oil cylinder base for fasten & loosen gear box | ⑧ Hydraulic cylinder |
| ② Leading screw | ⑨ Coolant pump |
| ③ Spindling weight counter balance unit | ⑩ Leader for fasten & loosen gear box |
| ④ Limit switch, upper | ⑪ Electric control unit |
| ⑤ Special arm raising safety device | ⑫ Spindle and quill |
| ⑥ Hydraulic control unit | ⑬ Coolant nozzle |
| ⑦ Limit switch, lower | ⑭ Plain box table |

Our goal is to help our customers get their job done precisely, productively, and profitably. By partnering with the best people and companies in the industry and by working together with a common vision, our success comes when our customers are successful.

Who's Who of Our Customer List:

Here at Kent USA, we take pride in knowing that our machines are making parts and profits for our customers in small and large shops throughout. For this reason, we would like to give our thanks to the following businesses:

Allied Signal, Avery Denison, Emerson Electric, Harley Davidson, The Hon Company, Case Industries, John Deere, Nissan, Chrysler Jeep, GM, IBM, Sony, Boeing, Northrop, GE, United Technologies, Coors Ceramic, Morton International, Timken Bearing, INA Bearing, Florida Power and Light, Utah Power and Light, Los Angeles DWP, NASA, UCLA, UCI, etc.



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