## Precision Radial Drills TPR-C1600 TPR-C1600 TPR-C1600 TPR-C1600

TPR-1230H

TPR-720A TPR-820A TPR-920A TPR-1100 TPR-1230 TPR-C1250A

# KEN

Kent Industrial USA Delivering Value, Service, and Quality Since 1979

### KEN1 USA

TPR-1230

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

PR-720A

- 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 heattreatment 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.
- <sup>®</sup> The over-load protective devices can secure the operator against injury.

TPR-820A

TPR-920A

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.

#### C1250A/ C1600/ 1600H

TPR-1230H

al

- 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.

TPR-1100

- 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)



PR-C2500

#### 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 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.

-

In 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.

'PR-C1600

TPR-1600H

- 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.
- Free speed preselection, speed change id hydraulically actuated. Fast and very easy to be operated.

TPR-C1250A



#### Standard accessory:

Adjustment tools (box included) ······1	set
Cooling device (pimp 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

510\*510\*590 m/m (small size) 2 Application:TPR-720A-1600H



								Unit/mm
	MODE		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	
Distanç	e from column surfa	ace to spindle center, Min		220		280	500	С
Trave	of spindle h	head	530	630	730	820	2000	D
Distanc	e from base surfa	ice to spindle end, Max	1060	1210		1270	2000	E
Distand	e from base surfi	ace 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			1000x800x560	LxKxH
Dimension of base			1260x640x160			1725x715x180	3520x1400x320	RxSxQ
Таре	r hole spindle			MT#4		MT#4	MT#6	
Stroke of spindle				220		230	450	-1
R.P.M of spindle (rpm x steps)			88,	, 154, 282, 455, 7	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.)		om floor (Max.)	2170	2320		2530	3990	М
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 <b>D</b>		42 <b>D</b>	80 <b>D</b>	
		Cast iron		50 <b>D</b>		55 <b>D</b>	100 <b>Φ</b>	
	Tapping	Steel		25 <b>Φ</b>		25 Φ	65 <b>D</b>	
		Cast iron		32 <b>Φ</b>		38 <b>D</b>	75 <b>D</b>	

	MODE	L	TPR-1230	TPR-1230	H  TPR-C125	DA TPR-C160	0   TPR-1600H	
Dai.of column		300			350		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		С
Travel of spindle head		890		900	1250	1140	D	
Distance from base surface to spindle end, Max		1370			1220		E	
Distanc	e from base sur	face to spindle end, Min	490			340		F
Elevating height of Arm			6	30		565	850	E-F-I
Effective area of box table			635x5	635x520x415		635x500x500		LxKxH
Dimension of base			1725x7	715×180	2030x980x20	5 2380x980x20	5 2480x1050x210	RxSxQ
Taper hole spindle			M	T#4	MT#5		MT#5	
Stroke of spindle			2	50		315		1
R.P.M of spindle (rpm x steps)			44-15	500x12	25-2	25-2000×16		
Feed of spindle (rev.x steps)			0.05 ,0.0	9 ,0.15X3	0.04	0.04-3.2X16		
Main motor (HP)			3(two spe	ed motor)		5HP		1.0
Elevating motor (HP)		1	HP		2HP		1000	
Clamping motor (HP)		11	HP		1HP			
Coolant equipment (HP)		1/8	внр	1	1/8HP			
Machine height from floor (Max.)		from floor (Max.)	27	780		2810		M
Base + column height		20	060	-	2600		G	
Net weight (approx)kgs			210	0(kg)	3000(kg)	3500(kg)	4600(kg)	
Shipping weight (approx)kgs			230	0(kg)	3540(kg)	4100(kg)	5100(kg)	
Shipping dimensions (LxWxH)		2035x9	95x2240	2235x1220x254	0 2590x1220x254	0 2850x1400x2940		
Capacity	Drilling	Steel	4	<sup>42</sup> Φ		50 <b>D</b>		
		Cast iron	5	55 <b>D</b>		60 Ø	70 <b>D</b>	
	Tapping Steel Cast in	Steel	2	25 Φ		45 <b>Φ</b>	50 <b>D</b>	
		Cast iron	3	38 <b>D</b>		55 Ø	60 <b>Φ</b>	











Hydraulic clamping/ TPR-1230H



Electric clamping/ TPR-1230





- P/B swich for spindle startP/B swich for spindle stop
- P/B swich for arm lifting
- () P/B swich for arm lowering
- (5) Selector for step clamping
- 6 Emergency stop
- ⑦ P/B swich for clamping
- (8) P/B swich for unclamping
- Lever for spindle hydraulically forward/reverse turn
- Control lever for clutch
- Hand wheel for fine feed
- Knob for spindle speed selection
- Mob for feed rate selection
- Horn for auto and manual feed
  Hand wheel for hand horizonal movement
- Regulator for feed depth selection and fine adjustment
- 1 Dial for feed depth indication
- Spindle
- Sight glass
- Oil level sight glass
- Sight glass for lube check
- 🙆 Work light
- Switch for coolant water

() (2) Structure of feed lever

- ③ Ejecting lever
- ( Horn
- ⑤ Cross switch
- 6 Swing lever
- 1 Change lever
  - ④ H.L change lever
  - Limit hand wheel
  - 1 Machine oil indicator
  - Green, release button
  - 1 Red, clamp button

Oil cylinder base for fasten & loosen gear box

- ② Leading screw
- ③ Spinding weight counter balance unit
- ④ Limit swith, upper
- Special arm raising safety device
- Hydeaulic control unit
  Limit swith, lower

- (8) Hydraulic cyclinder
- Ocolant pump
  - Leader for fasten & loosen gear box
  - Electric control unit
  - Spindle and quill
  - Coolant nozzle
  - Plain box table



- Elevating motor(2HP)
  Lead screw
- (3) Column

60

(1)

0

- Hydraulic flow distributing valve
  Coolant pump(1/8HP)
  - (6) Main motor(5HP)
- (a) Hydraulic pump motor(1HP)
  (b) Spindle
  - 1 Plain box table

② Electric control unit



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:

100000000 000

500000000

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.



Kent Industrial USA, Inc. 1231 Edinger Ave. Tustin, CA 92780 1.800.KENT.USA www.kentusa.com info@kentusa.com



**Providing Solutions.** 

Phone: 916-638-7718 Fax: 916-638-2450 www.scottmachinery.com

4700 Lang Ave, Suite D, Mcclellan, CA 95652