

# BALL GUIDE POST SETS FOR DIE GUIDES AND PADS

—GUIDE—

## Reduce man-hours (die costs) by using a PKH pad guide system

### Conventional pad guide systems

#### Slide plate system

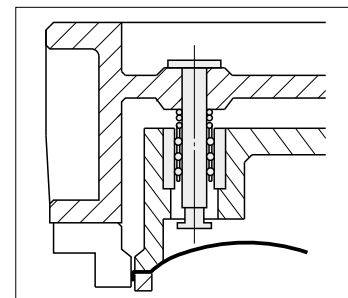
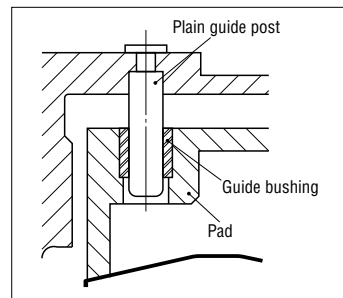
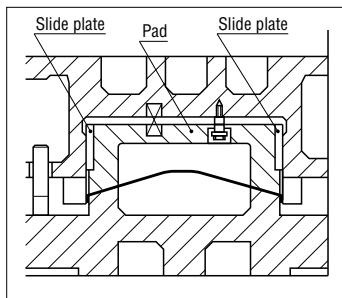
Slide plates are generally used for the pad guides as shown below in medium and large press dies, including dies for automobile parts. However it is difficult to finish the sliding surfaces of these plates with precision. Therefore when the die is assembled, the clearance must be measured and the slide plates must be adjusted. However the use of NC systems for die machining has made high-precision machining of dies possible. When such high-precision dies are used, adjusting the slide plates may cause displacement of the die surfaces.

#### Plain guide post system

In addition to the slide plate system, plain guide posts are also used as pad guides. However, since most pads are not well-balanced, pad assembly and disassembly are troublesome tasks.

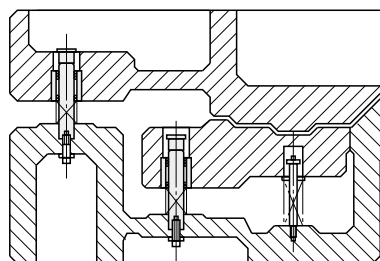
### Pad guide system using ball guide posts

The ball guide post system does not require man-hours for machining like the slide plate system. It also allows frequent die assembly and disassembly to be performed easily. Consequently, this system has significant benefits in terms of reducing machining man-hours and therefore die costs. A 50% reduction in total costs (machining cost + part costs) compared with the slide plate system can be expected. The system is also superior in terms of die setup workability and safety.



### Other examples of uses for ball guide posts

#### Use for drawing dies or bending dies

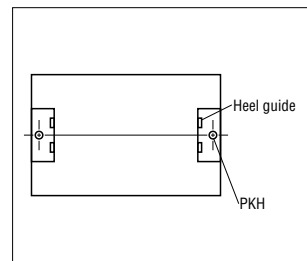


No slide plates are required.

Except for the die guides of trimming dies and others which may be exposed to thrust, PKH-U and PKHLU provide greater durability.

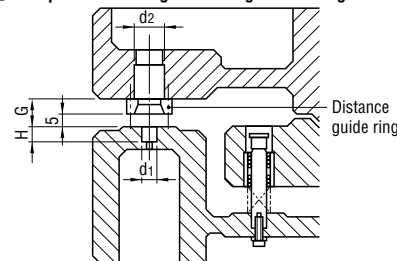
PKHLU is a thrust load absorbing type. It is particularly suitable for bending dies and drawing dies, and can absorb error resulting from machining.

#### Use for die centering

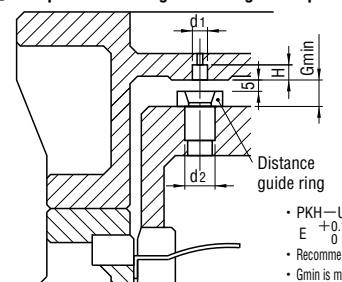


When used to center the upper and lower dies in a die set that uses heel guide plates, the PKH system ensures easy and correct die assembly and disassembly.

### Example of mounting machining — For die guide —



### Example of mounting machining — For pad —



- PKH-U · PKHLU  
E +0.1  
0
- Recommended clearance G=30mm
- Gmin is minimum clearance at BDC.

### Bushing installation method

- (1) Loctite adhesive
  - PKHL · PKH .....No.638 (LOC638 P.846)
  - PKHLU · PKH-U...No.401 or No.406 (products of Henkel Japan)
- (2) Fixed by HKD ( P.984)

# BALL GUIDE POST SETS

—FOR DIE GUIDES AND PADS—

**PKHL** RoHS

**PKHLU**  
—With urethane—

—For die guides—

**PKHL**  
①② SUJ2  
 58HRC ~

**PKHLU**  
① SUJ2  
 58HRC ~

② SUJ2 Urethane  
 58HRC ~ Shore A90

D	d1	E		d2	B	C	l	M	t	D1	G min.	H	Catalog No.		Base unit price 1 ~ 9 pieces		
		PKHL	PKHLU										Type	D	L	PKHL	PKHLU
50	+0.035 +0.030	+0.065 +0.045	83	+0.1 0	+0.045 +0.015	120	110	40	12	10	58	30	80	PKHL	50	240	Quotation
			95													280	
60	+0.035 +0.030	+0.065 +0.045	95	+0.1 0	+0.045 +0.015	130	120	50	12	10	68	30	80	PKHL	60	300	Quotation
			120													340	
80	+0.040 +0.032	+0.070 +0.045	145	+0.1 0	+0.045 +0.015	140	130	50	16	15	108	40	120	PKHLU	80	350	Quotation
			145													400	
100	+0.040 +0.032	+0.070 +0.045	145	+0.1 0	+0.045 +0.015	160	150	30	16	15	108	40	120	PKHLU	100	450	Quotation
			145													450	

① d1 and d2 are the dimension tolerances for mounting hole machining as shown at the bottom of the page at left. ② Sales of individual components P.983

**PKH** RoHS

**PKH-U**  
—With urethane—

—For pads—

**PKH**  
①② SUJ2  
 58HRC ~

**PKH-U**  
① SUJ2  
 58HRC

② SUJ2 Urethane  
 58HRC ~ Shore A95

D	d1	E		d2	B	C	l	D1	G min.	H	Catalog No.		Base unit price 1 ~ 9 pieces		
		PKH	PKH-U								Type	D	10mm increments	PKH	PKH-U
38	+0.030 +0.025	+0.060 +0.040	64	+0.1 0	+0.040 +0.015	80	50	20	46	20	40	PKH	38	130 ~ 160	Quotation
			95											170 ~ 200	
50	+0.035 +0.030	+0.065 +0.045	83	+0.1 0	+0.045 +0.015	100	60	20	58	30	50	PKH	50	150 ~ 190	Quotation
			95											200 ~ 240	
60	+0.035 +0.030	+0.065 +0.045	95	+0.1 0	+0.045 +0.015	100	70	20	68	30	60	PKH-U	60	170 ~ 210	Quotation
			120											220 ~ 260	
80	+0.040 +0.032	+0.070 +0.045	145	+0.1 0	+0.045 +0.015	160	90	30	88	20	80	PKH-U	80	260 ~ 300	Quotation
			145											260 ~ 300	

① d1 and d2 are the dimension tolerances for mounting hole machining as shown at the bottom of the page at left. ② Sales of individual components P.983

Order **Catalog No.** — L  
**PKH 50** — 240

Price **Quotation**

Days to Ship **Quotation**