

GUIDE FOR DATE MARKED PIN SETS

PL EXCHANGE TYPE

PLATE SIDE EXCHANGE TYPE

■ Features of Date Marked Pin Sets

- Improves productivity. The inside arrow can be replaced from the PL side (internal side of the die) without removing the plate. (PL exchange type only)
- Facilitates quality control and lot management of finished products.
- The month indication can be easily changed from the PL side (internal side of the die). (Simply turn the arrow using a screw driver.)
- Incorporates a steel ball stopper mechanism that is superior than an O-ring stopper in positioning accuracy, and more tolerate to gas and heat that are generated during molding.

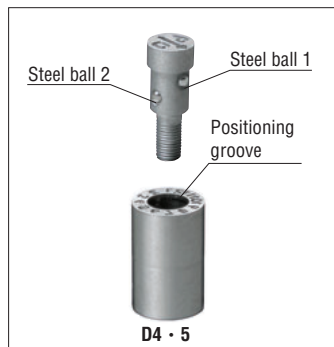
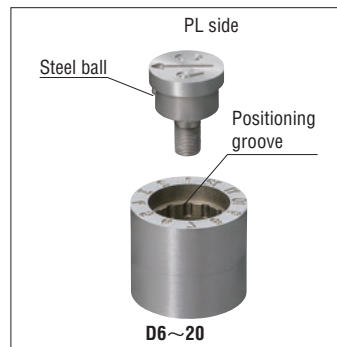


■ Structure and Usage

PL EXCHANGE TYPE

Item	M	H
① Inside Arrow	SUS420 (Stainless steel)	50~53HRC
② Outside Ring	SUS440C (S44004)	58HRC~
③ Steel Ball	SUS440C (S44004)	58HRC~
④ Spring	SUS304 (S30400)	—
⑤ Adjusting Nut	SUS420 (Stainless steel)	50~53HRC
⑥ Cap	SUS420 (Stainless steel)	50~53HRC

D	h	S	Effective revolution
4	1.9	0.6	3 revolutions
5	1.9	0.65	
6	1.9	0.7	
8	2.2	0.9	
10	2.2	1.7	4 revolutions
12	2.4	1.7	
16	2.9	1.8	
20	3.2	1.8	

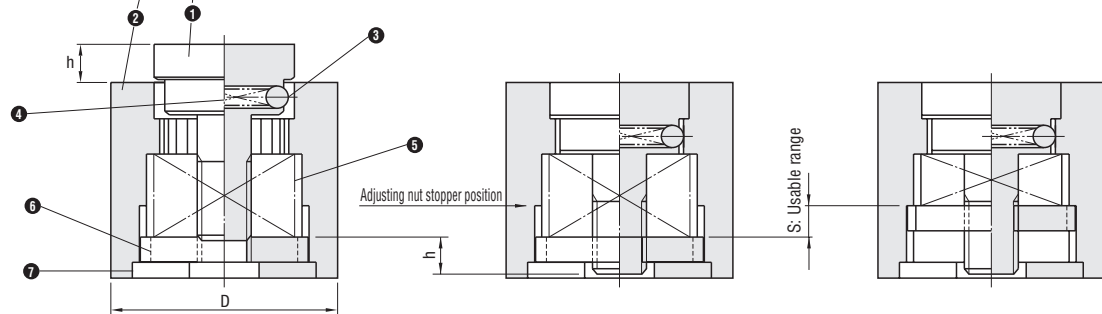
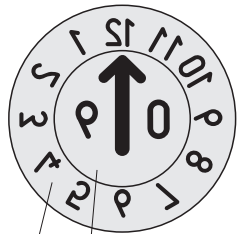


■ Notes on installation of inside arrow

When installing the inside arrow, pay attention to the following.

- ① Remove the antirust agent adhered upon delivery.
 - ② Clean up any grime and foreign substances by using air to blow them off the screw part of outside ring.
 - ③ Use a special screw driver or minus screw driver to carefully fasten the inside arrow so that the threads are matched.
- ⚠ If a thread seizure is likely to occur during the installation of inside arrow, temporarily remove the inside arrow without fastening, then install it again. If the thread seizure occurs, the inside arrow and outside ring cannot be combined.

⚠ Two moved steel balls and six grooves are used because D4 and D5 are divided equally among twelve.



• How to use the inside arrow

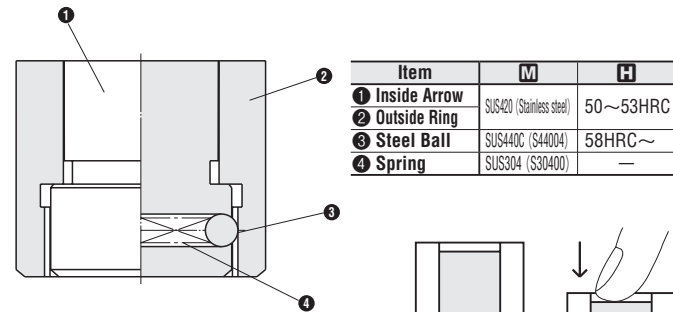
To attach the inside arrow	To change the month indication (Arrow direction)
	To remove the inside arrow
Clockwise	Counterclockwise

- How to insert the inside arrow
- How to use
- How to take out the inside arrow

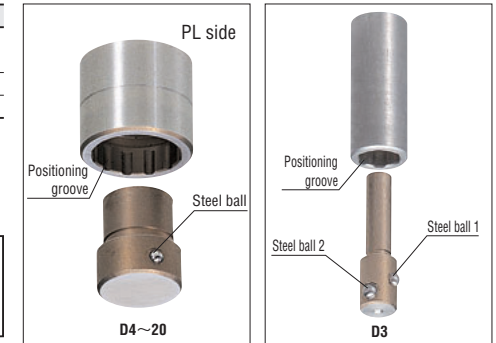
Use a screw driver for date marked pins **DTPP** or a minus screw driver to turn the inside arrow clockwise until the adjusting nut stops. Then reverse about a half rotation from the position it stopped.

Change the month indication by turning it counterclockwise with a screw driver for date marked pins **DTPP** or a minus screw driver. Remove the inside arrow by rotating it counterclockwise.

PLATE SIDE EXCHANGE TYPE



Item	M	H
① Inside Arrow	SUS420 (Stainless steel)	50~53HRC
② Outside Ring	SUS440C (S44004)	58HRC~
③ Steel Ball	SUS440C (S44004)	58HRC~
④ Spring	SUS304 (S30400)	—



• How to attach/detach the inside arrow

You can easily attach/detach the inside arrow by manually pushing it as shown in the right figure. (To detach a small diameter type inside arrow, lightly push it out using a screw driver, etc.)

■ How to mount/unmount the date marked pin set

• How to Mount

Make a reamer hole (H7 tolerance) on the plate and lightly drive the date marked pin into it using a wood or urethane hammer, etc.

- ⚠ *1. If the base hole is too small, the inside arrow may fail to rotate.
- *2. Before press-fitting the date marked pin set (PL exchange type) into the die, confirm that the inside arrow is securely set in the outside ring. If the inside arrow is protruding from the outside ring, the date marked pin set may be broken (e.g. the threads of inside arrow are crushed).

• How to Unmount

Make sure to prepare a hole (*a) from the plate's back beforehand. Use a round stick, etc. to drive it out from that hole as shown in the right figure.

- ⚠ Please note that, for date marked pin sets (PL exchange type), if the driving force is too strong, the nut will become deformed and the threads of inside arrow will be crushed, etc., resulting in failure to take out the inside arrow.

D	*a	
	PL EXCHANGE TYPE	PLATE SIDE EXCHANGE TYPE
3	—	1.6 or less
4	3.0~ 3.5	2.2 or less
5	3.0~ 4.0	2.8 or less
6	3.0~ 5.0	3.0 or less
8	3.0~ 7.0	4.6 or less
10	4.0~ 8.0	5.0 or less
12	5.0~10.0	—
16	5.0~13.0	10.5 or less
20	5.0~15.5	12.5 or less

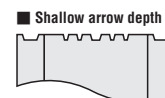
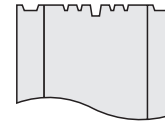
■ Notes

- ⚠ Characters on the finished products will be embossed normal character. (Convex)
- ⚠ Keep mold temperature under 150°C.
- ⚠ Cannot be used for die cast. Use Date Marked Pins for Die Cast for die cast.

■ Shape of Marks and Character Font

• Shape of marks

■ Standard arrow depth



The depth of the characters and the arrow mark is the same.

D	Depth of mark (mm)			
	PL EXCHANGE TYPE		PLATE SIDE EXCHANGE TYPE	
Characters	Arrow	Characters	Arrow	
	Standard	Shallow	Standard	Shallow
3	—	—	0.12	0.22
4	0.12	0.22	0.12	0.14
5	0.14	0.25	0.14	0.16
6	0.18	0.40	0.18	0.18
8	0.20	0.40	0.20	0.40
10~20	0.22	0.50	0.22	0.50

D	Drafts for pulling (Angle, one side)	
	Characters	Arrow
	PL EXCHANGE TYPE	PLATE SIDE EXCHANGE TYPE
3	—	30°
4	23°	23°
5	24°	24°
6	22°	24°
8	24°	24°
10~20	25°	25°

Date Marked Pin Sets	Finished products
Reverse character (Concave character)	Normal reading (Convex embossed character)

⚠ For the mark depth of date marked pin sets (convex character) with concave character formed on molded products, refer to Convex character Type Date Marked pin sets (PL Exchange Type) pages. The character font of date marked pin sets (convex character) is the same as the following.

• Character font

PL EXCHANGE TYPE	PLATE SIDE EXCHANGE TYPE
1234567890	1234567890
ABCDEFGHI	ABCDEFGHI
JKLMNOPQR	JKLMNOPQR
STUVWXYZ	STUVWXYZ

⚠ For the character font of D4・5・6 outside rings of plate side exchange type, the numbers from 1 to 9 are the character font of plate-side exchange type while the numbers from 10 to 12 are the character font of PL exchange type.