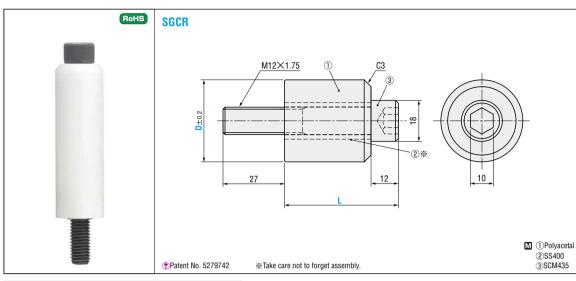
# **SPRING GUIDE RETAINERS** -RESIN TYPE-

# [PRODUCT DATA] SPRING GUIDE RETAINER



D	Applicable coil spring SW □			Catalog No.
	F	L·M·H·B	G·Z·V	Type D—L
23	_	φ 50	φ 50	SGCR23— 50 75 100 125
26	φ 50	-	_	SGCR26— 50 75 100 125
28	_	φ 60	_	SGCR28— 50 75 100 125
31	φ 60	_	_	SGCR31— 50 75 100 125
36	φ 70	φ70	_	SGCR36— 50 75 100 125
Outer dimensions are shown for applicable coil springs.				

This commodity has been patented by Tokyo Hatsujyo Manufacturing Co.,Ltd.



Catalog No.

SGCR26-50



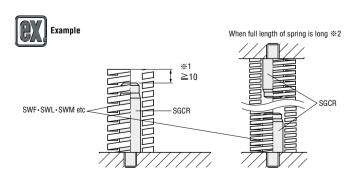






#### ■Precautions on Use

- Ambient operating temperature is up to 110℃. (Ambient operating temperature of coil spring is 80°C)
- White powder may appear on the surface if exposed to ultraviolet ray for a long time, but it is not a problem in use. Avoid storage or use in any place exposed to direct sunlight for a long time.



- \*1 Select L dimension ensuring above 10mm safety allowance on the upper part of spring guide at the bottom dead center.
- \*2 Criterion for spring is free length/outer diameter=4 or above.

#### Effects of the Spring guide retainer

If used without a spring guide, problems such as buckling or bending of the spring body may occur, resulting in concentrated high stress on the inside of the bend and then leading to breakage. Be sure to use a spring guide, such as a shaft or outer diameter guide.

Especially the longer spring (target is length/outer diameter = 4 or more) tends to occur in buckling or bending, it is recommended to use the spring guide retainer on both ends of the spring.

#### [Fig.1] Presence or absence, and bending of spring guide retainer





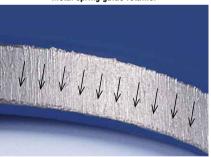
### ■ Material of the Spring guide retainer

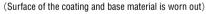
The coil spring has a characteristic to bend during compression as shown in figure 1 on the left, hence the inner diameter of the spring and the spring guide retainer may contact. If the material of spring guide retainer is metal, the inner diameter surface may wear out due to abrasion. Although the special process to increase the durability is done on the basis material of coil spring, the abrasion may weaken the effect of this special process. If the material of spring guide retainer is resin, the abrasion of the inner diameter surface is limited.

The surface of metal spring guide retainer may get rough due to repeated usage, and it may accelerate the abrasion of the spring inner diameter surface. Check the condition of the timely, and replace if needed

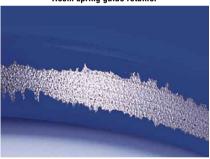
# [Fig.2] Abrasion of inner diameter surface of the coil spring

#### Metal spring guide retainer





## Resin spring guide retainer



(Only the coating has worn out and not the base material)

[Test conditions] • Test product

: SWL70-250

 Test conditions : Eccentricity 2°, Speed 70 SPM

• Amount of Deflection : 100mm (Conditions 3 hundred thousand times)

1439 1440