RoHS

型号Model	扭矩Rated torque	无阻尼方向扭矩 Without direction of damping torque	力矩输出方向 Direction of Rotation
N11B0-R102	0.1N·m (1kgf·cm)	0.03N·m (0.3kgf·cm)	顺向Clockwise
N11B0-L102			逆向Counter-Clockwise
N11B0-R202	0.2N.m (2kgf.cm)	0.06N·m (0.6kgf·cm)	顺向Clockwise
N11B0-L202			逆向Counter-Clockwise
N11B0-R302	0.3N.m (3kgf.cm)	0.1N·m (1kgf·cm)	顺向Clockwise
N11B0-L302			逆向Counter-Clockwise

注（1）规格扭矩为温度23±2℃测定的数据；
注（2）白色转轴为顺时针力矩输出产品，灰色转轴的为逆向针扭矩输出产品；
注（3）可以通过更换缓冲器粘性油的粘度提供特殊扭矩定制。

Note (1) torque specification for 23 + 2 ℃ temperature measurement data;
Note (2) white shaft is clockwise torque output products, gray shaft counterclockwise torque output products;
Note(3) can provide special orders by changing the buffer oil viscosity.

产品描述Product Description

最大使用角度：	110°
使用温度范围：	-5~50℃
产品外壳和端盖的材质：	PBT
旋转轴材料：	PBT
使用油：	硅油

Largest Angle:	110°
Temperature Range :	-5 ~ 50℃
Body & cap material:	PBT
Axis Of Rotation:	PBT
Oil type :	Silicone oil

使用说明Directions for use

N11系列旋转缓冲器在图A所示垂直位置开始下落至水平位置时，由于设计的扭矩在开始位置时最弱，随着缓冲器角度的旋转,扭矩逐渐增强，所以盖子的动作能在最后缓慢关上，图B所示当盖子从水平位置开始下落时，由于盖子重力产生的扭矩在竖直方向上时为零，而缓冲器在最后的位置扭力最大，所以盖子不能完全闭合；

N11 series rotary damper in the figure shown in A vertical position to horizontal position when they start, due to the design of the torque is the most weak, at the beginning of the position as the rotation of the damper Angle, torque enhanced gradually, so the action of the lid can be in finally slowly shut; As shown in figure B from horizontal position when the lid began to fall, the torque generated in the lid of gravity on the vertical direction is zero, and the position of the damper in the final torque is the largest, so the lid cannot be closed completely;
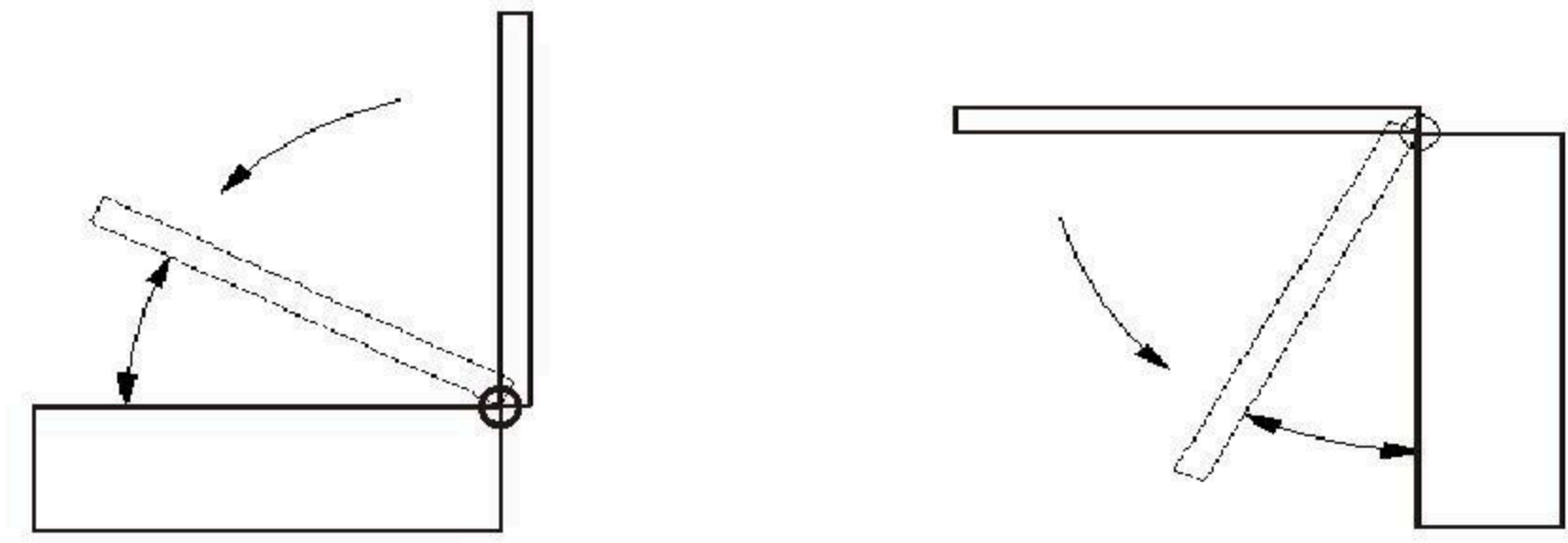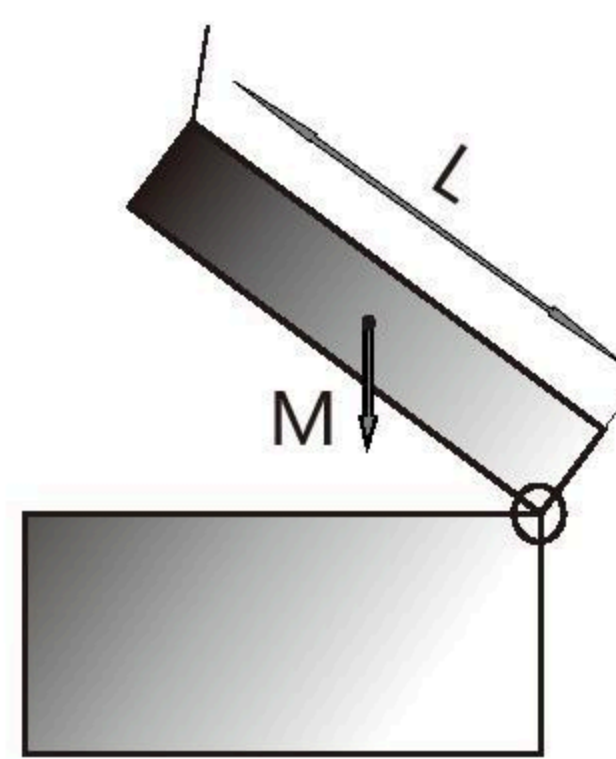

图A
缓冲器扭矩逐渐强盖子可以缓慢闭合
Figure a.
Buffer torque gradually strong
The lid can be slowly closed

图B
缓冲器扭矩逐渐强盖子不能完全闭合
Figure B
Buffer torque gradually strong lid is not closed completely

图示的例子在使用旋转缓冲器的时候，请按下列计算方式算出需要的扭矩；

Examples of graphic when using rotary buffer, please click the following calculation method to calculate the torque;

例：盖的重量M=0.2kg
旋转轴离盖板边缘的长度L=0.3m
负载扭矩：T=0.2×9.8×0.3÷2
　　　　　=0.294N·m
由上面的计算我们选定缓冲器为N11B0-302

Example: the weight of the cover M= 0.2 kg
Axis from the edge of the plate length L= 0.3 m
The load torque:
T = 0.2 * 9.8 * 0.3 present 2
T = 0.294 N·m
Calculated by the above, we selected damper is N11B0 - 302

回转轴和结合部件的间隙请尽量减小，如果有间隙存在，回转下落时盖板速度会受到影响；

Gap of rotating shaft and combining parts please reduce as far as possible, if there is a gap, rotating flat speed down would be affected;

缓冲器根据使用环境温度的变化扭矩也会发生变化。其变化规律为环境温度升高时扭矩下降，动作时间加快，环境温度下降时扭矩升高，动作时间放慢，这是因为环境温度变化时，粘性油的粘度也随之变化的缘故。但是当环境温度恢复到常温时，扭矩也会恢复到原来的数值；

Damper according to the use of the change of environmental temperature torque will change too. Its change rule is when the environment temperature torque, action time, environment temperature drops when the torque increases, the action time to slow down, this is because the environment temperature changes, viscous oil viscosity changes. But when the environment temperature back to normal temperature, the torque will restore to its original value;
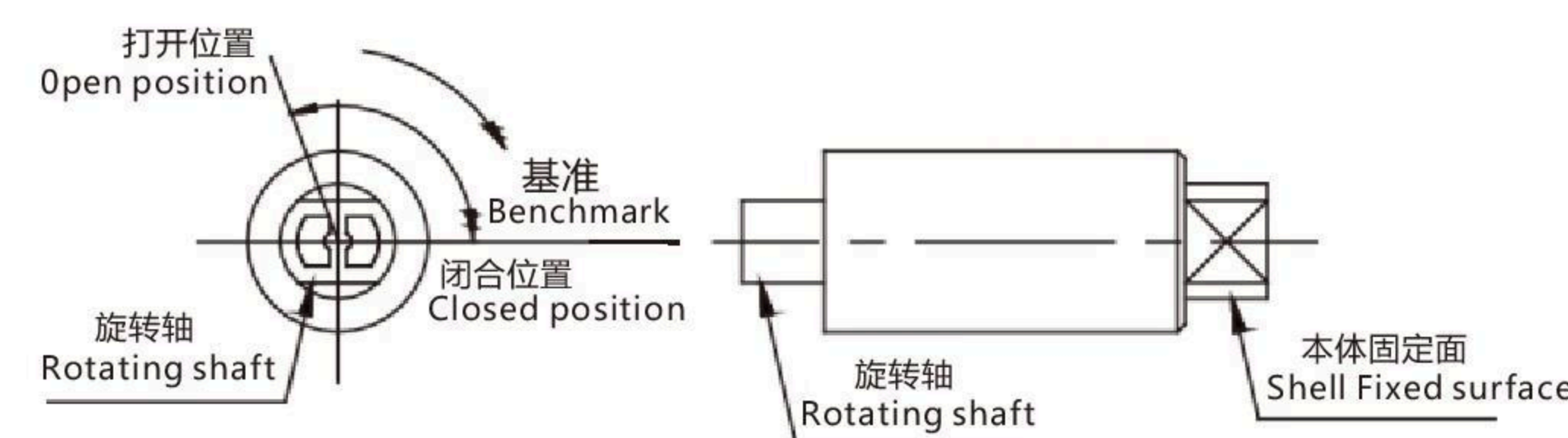

(Determination of the temperature ℃)
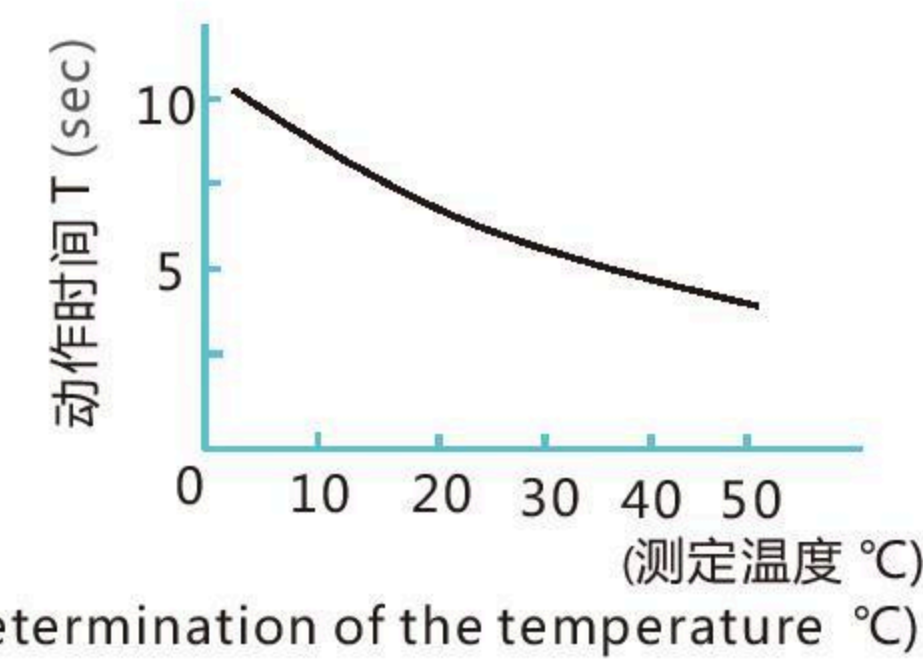
N11系列旋转缓冲器的旋转角度为110度，超过110度回转时有损坏缓冲器的可能，请在外部安装停止机构；

N11 series rotary damper rotation Angle of 110 degrees, more than 110 degrees of rotation has the possibility of damage to damper, please install stop in external agencies;

动作的角度以闭合位置为基准；

The Angle of the movement to close position as a benchmark;

打开位置 Open position
基准 Benchmark
旋转轴 Rotating shaft
闭合位置 Closed position
旋转轴 Rotating shaft
本体固定面 Shell Fixed surface

N11B0-R***

缓冲器的扭矩发生方向根据缓冲器结构不同而有所不同，请根据不同的使用方式选用合适的缓冲器。

Damper of torque direction according to several different damper, please choose the appropriate damper according to the different methods of trial.

外形尺寸Outside Diagram

型号Model

Ø11   32   5   5

正视图Front View   左视图Left View

Ø7

22   5
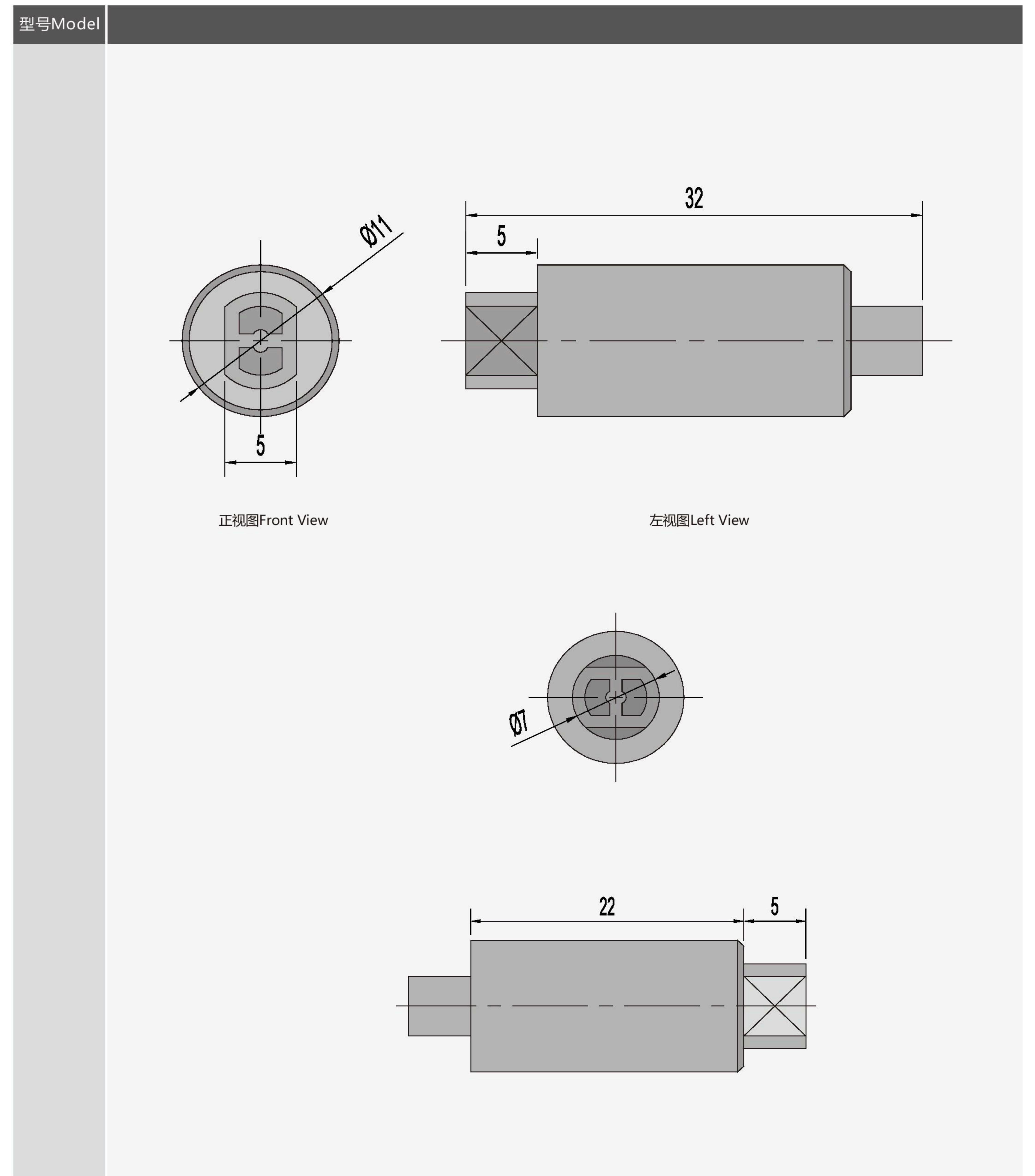
运用领域Using Field

目前广泛应用于小翻盖慢落缓冲，能有效降低产品使用中产生的撞击和噪音，提高产品使用寿命。

At present,widely used in small flip slow down buffer, effectively reduce the impact and noise generated in the use of products, increasing the service life of the product.