



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
N20A(J)*-R103	1N·m (10kgf·cm)	0.3N·m (3kgf·cm)	顺向Clockwise
N20A(J)*-L103			逆向Counter-Clockwise
N20A(J)*-R203	2N·m (20kgf·cm)	0.6N·m (6kgf·cm)	顺向Clockwise
N20A(J)*-L203			逆向Counter-Clockwise
N20A(J)*-R303	3N·m (30kgf·cm)	1.0N·m (10kgf·cm)	顺向Clockwise
N20A(J)*-R303			逆向Counter-Clockwise

注(1) 规格扭矩为温度23±2°C时的数据；  
 注(2) 白色端盖为逆时针扭矩输出产品，黑色端盖为顺时针扭矩输出产品；  
 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；  
 注(4) 型号中“\*”表示0-3数字,对应不同的安装方式，型号中“J”表示旋转轴为金属轴的产品,详细参数请咨询我公司销售人员。  
 (1) torque specification for at 23 ± 2 °C temperature data;  
 (2) white end cover is counterclockwise torque output product, the black end cover for clockwise torque output products;  
 (3) can provide special torque by changing the buffer oil viscosity of custom;  
 (4) Type in "\*" the number 0 to 3, corresponding to different installation way, Model number "J" indicates the axis of rotation of the metal shaft products,detailed parameter please consult our company sales staff

产品描述 Product Description

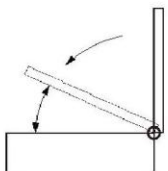
最大使用角度： 110°  
 最大使用温度范围： -5~ 50°C  
 产品外壳及端盖的材质： PBT  
 旋转轴材料： PPS  
 使用油： 硅油

Using the Angle : 110°  
 Operating temperature : -5~ 50°C  
 Body & cap material: PBT  
 Rotating shaft material: PPS  
 Oil type : Silicone oil

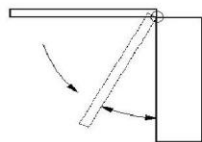
使用说明 Directions for use

N20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垂直方向上时为零，而缓冲器在最后的位置扭力最大，所以盖子不能完全闭合；

N20 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;



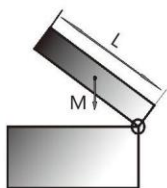
图A 缓冲器扭矩渐强盖子可以缓慢闭合  
Figure a. Damper torque gradually strong The lid can be slowly closed



图B 缓冲器扭矩渐强盖子不能完全闭合  
Figure B Damper 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;

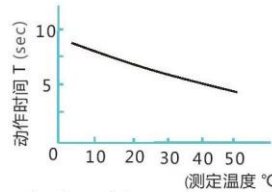


例：盖的重量M=1.5kg  
 旋转轴离盖板边缘的长度L=0.4m  
 负载扭矩：T=1.5×9.8×0.4÷2  
 =2.94N·m  
 由上面的计算我们可选定缓冲器为N20A0-303  
 Example: the weight of the cover M= 1.5 kg  
 Axis from the edge of the plate length L= 0.4 m  
 The load torque:  
 T = 1.5 \* 9.8 \* 0.4 present 2  
 T = 2.94 N·m  
 Calculated by the above, we selected damper is N20A0 - 303

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;



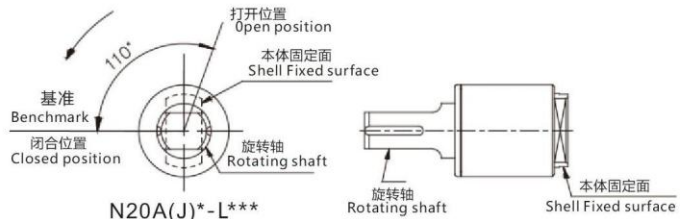
(Determination of the temperature °C)

N20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；

N20 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;



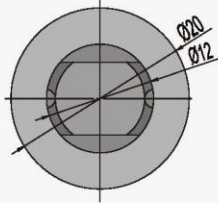
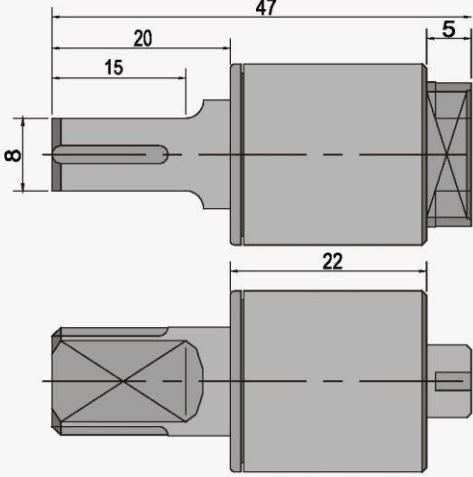
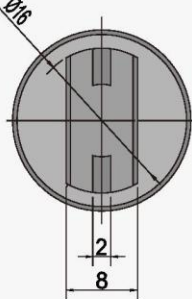
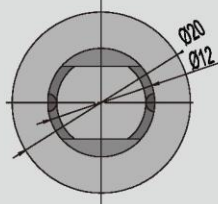
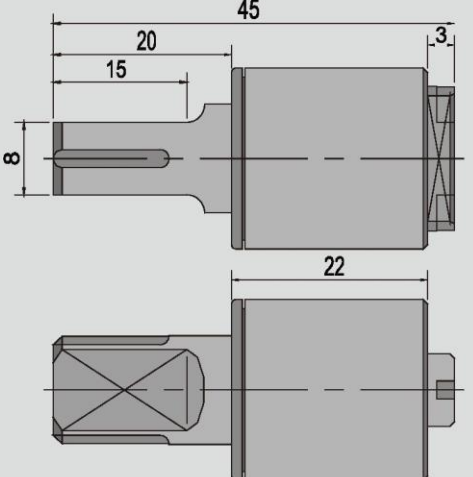
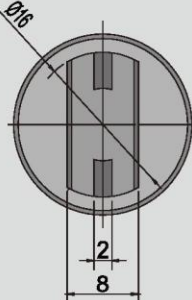
缓冲器的扭矩发生方向根据缓冲器结构不同而有所不同，请根据不同的使用方式选用合适的缓冲器。

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

# N20A SERIES

## 旋转缓冲器 ROTARY DAMPER

### 外形尺寸 Outside Diagram

型号 Model			
N20A1	 <p>正视图 Front View</p>	 <p>左视图 Left View</p>	
N20A2	 <p>正视图 Front View</p>	 <p>左视图 Left View</p>	

注意: 两头接插件配合间隙应尽量小, 否则将会影响阻尼效果  
 Note: the two connectors fit clearance should be small as far as possible, otherwise will influence the damping effect

### 运用领域 Using Field

洗衣机翻盖的慢落缓冲

坐便器盖板及座圈的慢落缓冲

其他翻盖的慢落缓冲

Washing machine clamshell slow down cushion

Slow down the toilet lid and seat cushion of

Slow down other flip buffer