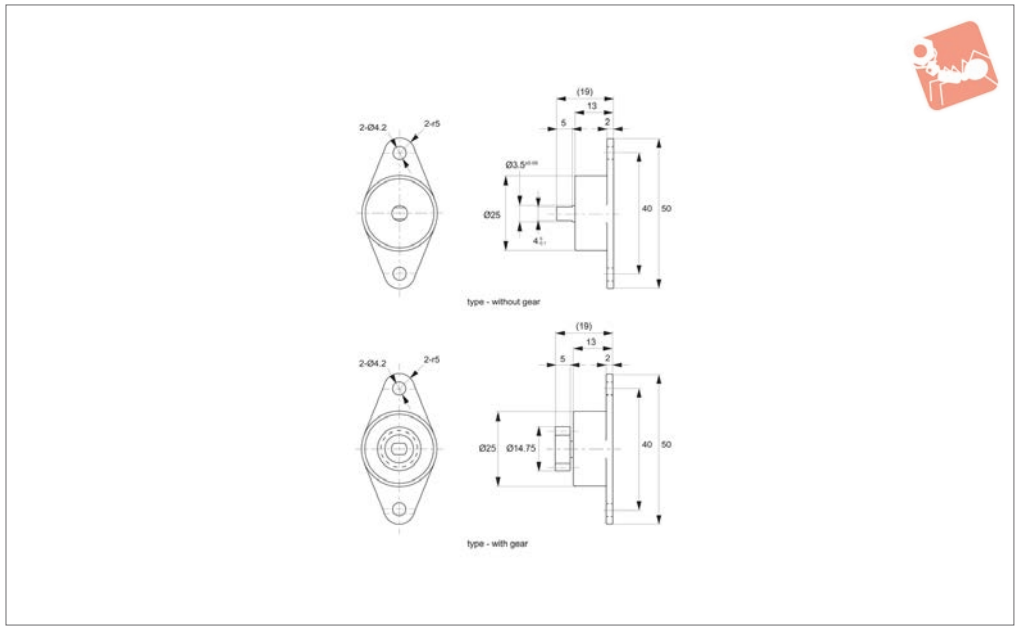


Q3060

Material
Body: polycarbonate
Shaft: polyacetal
Gear: polyacetal

Technical Notes
Gear specification:
Type - Modified Spur Gear
Tooth - Involute (full)
Module - 1.0mm
Pressure Angle - 20°
Number of Teeth - 12
Pitch Circle Diameter - 12mm

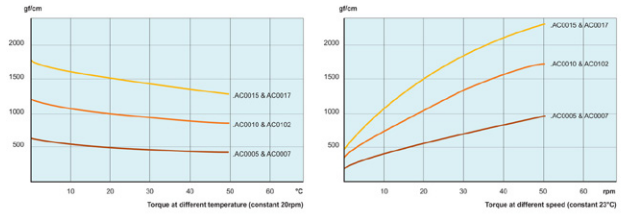
Temperature Range 0° to +50°C.

Tips
For graphs of torque at varying temperature and speed, see Torque Closing Speed Graphs earlier in this section.

Order No.	Type	Damping direction	Torque gf·cm	Shaft type	Weight g
Q3060.AC0005	w/o Gear	Clockwise	500	Polyacetal	11.8
Q3060.AC0006	w/o Gear	Anti-Clockwise	500	Polyacetal	11.8
Q3060.AC0007	w/o Gear	Bi-Directional	500	Polyacetal	8.3
Q3060.AC0010	w/o Gear	Clockwise	1000	Polyacetal	11.8
Q3060.AC0011	w/o Gear	Anti-Clockwise	1000	Polyacetal	11.8
Q3060.AC0012	w/o Gear	Bi-Directional	1000	Polyacetal	8.3
Q3060.AC0015	w/o Gear	Clockwise	1500	Polyacetal	11.8
Q3060.AC0016	w/o Gear	Anti-Clockwise	1500	Polyacetal	11.8
Q3060.AC0017	w/o Gear	Bi-Directional	1500	Polyacetal	8.3
Q3060.AC0405	with Gear	Clockwise	500	Polyacetal	11.8
Q3060.AC0406	with Gear	Anti-Clockwise	500	Polyacetal	11.8
Q3060.AC0407	with Gear	Bi-Directional	500	Polyacetal	8.3
Q3060.AC0410	with Gear	Clockwise	1000	Polyacetal	11.8
Q3060.AC0411	with Gear	Anti-Clockwise	1000	Polyacetal	11.8
Q3060.AC0412	with Gear	Bi-Directional	1000	Polyacetal	8.3
Q3060.AC0415	with Gear	Clockwise	1500	Polyacetal	11.8
Q3060.AC0416	with Gear	Anti-Clockwise	1500	Polyacetal	11.8
Q3060.AC0417	with Gear	Bi-Directional	1500	Polyacetal	8.3

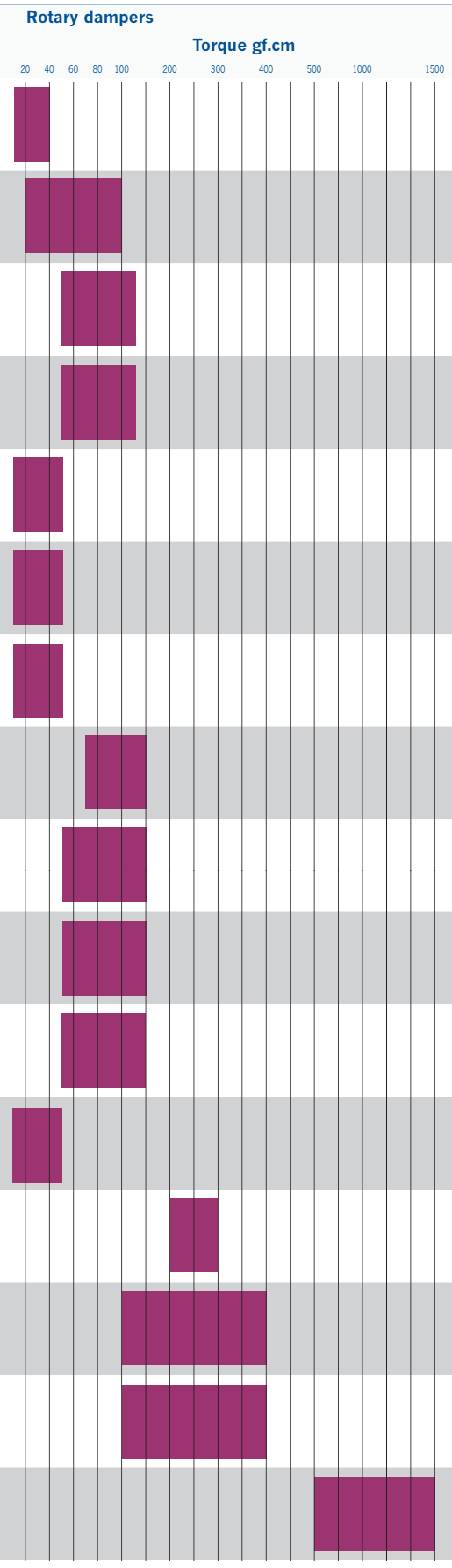
Rotary Dampers

uni- and bi-directional - continuous rotation - up to



Product selection chart

	Part no.	Damping direction	Torque gf.cm
	Q3000	Two way	10 - 40
	Q3020	Two way	20 - 100
	Q3022	Two way	50 - 150
	Q3024	Two way	50 - 150
	Q3026	Two way	15 - 50
	Q3027	Two way	15 - 50
	Q3028	Two way	15 - 50
	Q3029	Two way	70 - 150
	Q3031	Two way	50 - 150
	Q3032	Two way	50 - 100
	Q3033	Two way	50 - 150
	Q3036	Two way	15 - 50
	Q3040	One/two way	200 - 300
	Q3042	Two way	100 - 400
	Q3044	Two way	100 - 400
	Q3060	One/two way	500 - 1500



Rotary Dampers

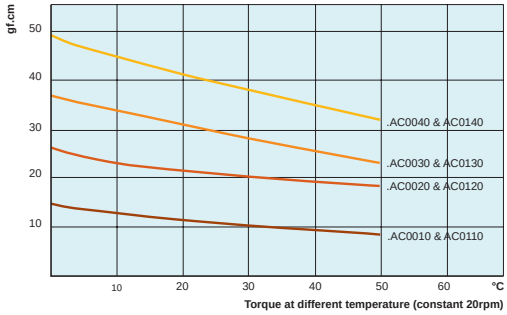
torque closing speed graphs

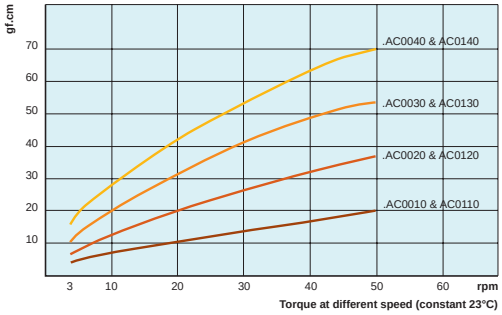
Torque closing speed graphs

Follow the torque calculation formula opposite and utilise the following torque closing speed graphs to ensure the selected rotary damper best suits you application.

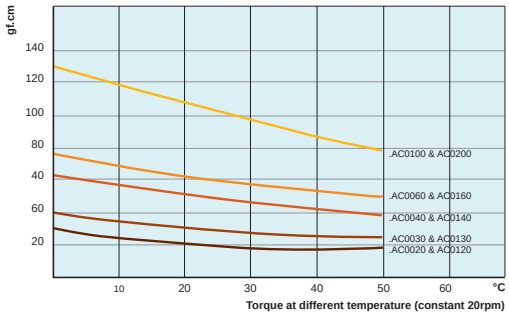
Torque graphs for temperature and speed

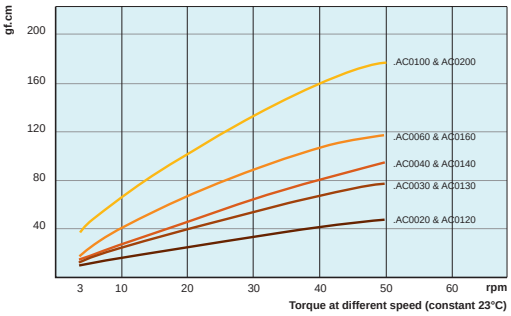
Q3000



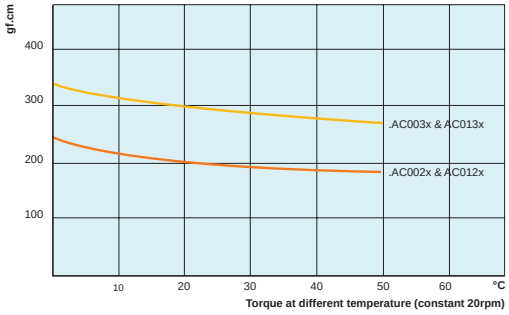


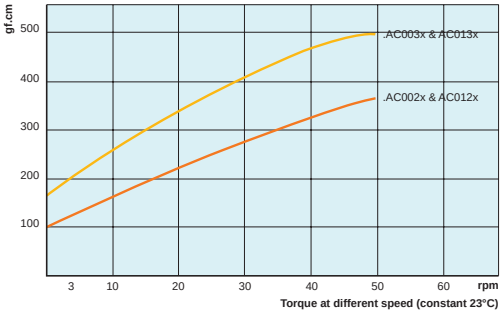
Q3020



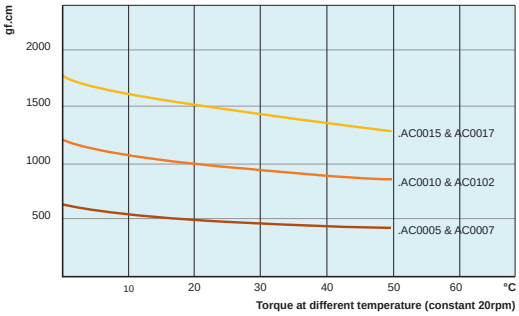


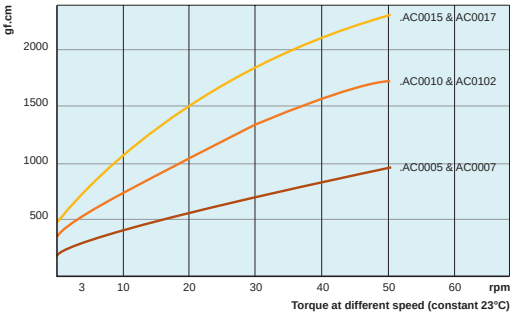
Q3040





Q3060

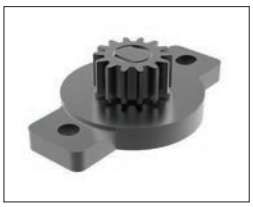


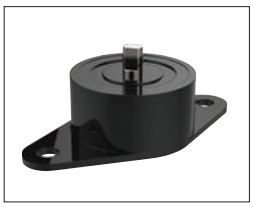


Solution for controlled opening and closing motion

Wixroyd rotary dampers offer controlled opening and closing of lids, drawers, covers and much more, they provide a range of solutions for a variety of applications creating smooth movement and function.

Though unnoticed in many applications, rotary dampers are a vital part of many products bringing quality, safety and durability. Rotary dampers provide quality movement enhancing both touch and feel. Available in unidirectional (single) dampening, or bi-directional (double) version. Also available with or without gears.



Rotary dampers

Rotary dampers utilise the principle of fluid resistance to reduce the speed of moving parts. The oil viscosity is utilised to provide the "braking force" of the damper. The torque or "braking force" can be adjusted by changing the viscosity of the oil. The advantages of the rotary type dampers are their compact size.

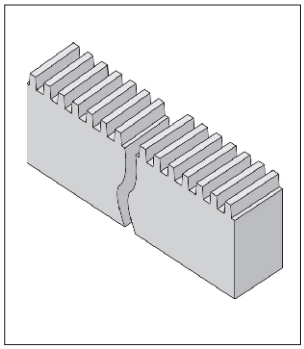
Applications

- Loading trays for CD, DVD, VCR, MD players.
- Arm rests, ashtrays, center consoles, glove boxes, handles and storage compartments in passenger vehicles.
- Camcorders, celular phones and small personal devices.

Operating principle

Rotary dampers utilise the movement of fluid forced from one chamber to another via a rotor. Dampening speed is dependent upon the viscosity of the fluid and the diameter of the fluid aperture.

Through the use of toothed plastic rack no. Q3150, rotary dampers with gears can be used to dampen on a linear plane rather than the normal dampening directly at the shaft.



Part no.	Q3200 to Q3260
Max. speed	50rpm
Max. cycle rate	10 cycles/min
Nominal torque rating	At 20rpm, 23°C (73°F)
Operating temperature	0 to 50°C (32 - 122F°)
Storage temperature	-20 to 60°C (-4 to 140°F)

Torque calculation

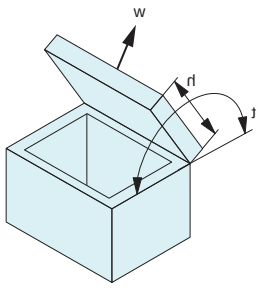
To calculate the torque for your application, the following measurements are necessary.

t (torque) = w x 0.5 x h

h = length from pivot point to end of lid (cm)

w = weight of the lid (Kg)

Torque force stated per product (see individual product pages), is the maximum torque to which the specified part can be exposed before the dampening force yields and hence dampening is overcome.



Note
Dampening direction is determined whilst looking directly onto the output shaft.

Important
Avoid side loading of the disk damper output shaft in order to maximise effectiveness.

Important note: Once calculation has been made choose a disk damper from our range which can accommodate the newly calculated torque of the application. Use the damper closing speed graphs opposite to confirm that the rpm given at the corresponding torque value matches the desired lid closing speed. If the desired rpm is beyond the capacity of the selected damper, then select another damper with a higher torque rating and re-test. If the rpm is too slow select another damper with a lower torque rating and re-test.