

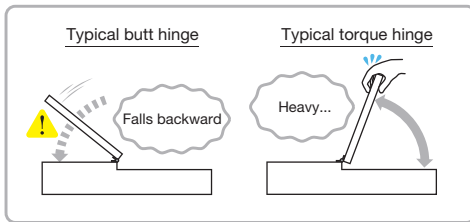
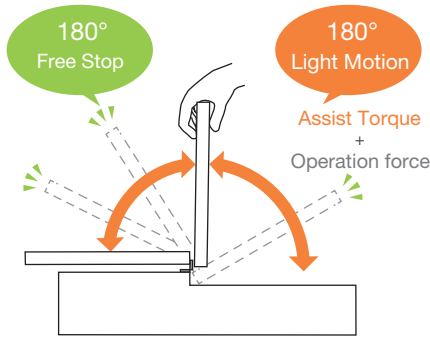
SPRING-ASSIST TORQUE HINGE

HG-TAWJ40



- Featuring free stop with lift-assist for lid opening & closing directions (0 ~ 180°), giving full access to the inside of equipment.
- Lift-assist makes lid feel lighter to open and close.
- This compact hinge is designed for external surface mounting on top-opening lids.
- See Lid Size Guidelines graph for recommended range of supported lid height and lid weight.
- The retaining torque (0 ~ 31 lbs-in) is adjustable with a 3/8" (10 mm) socket or wrench.
- Operating temperature: 32° to 104°F (0° to 40°C).
- Cover (included) provides clean appearance to blend in with aesthetics of machinery.
- Durability: successfully passed 50,000 open/close cycle test (private).
- Ideal for medical, analytical and factory automation equipment.

180° Lift Assist and Free Stop



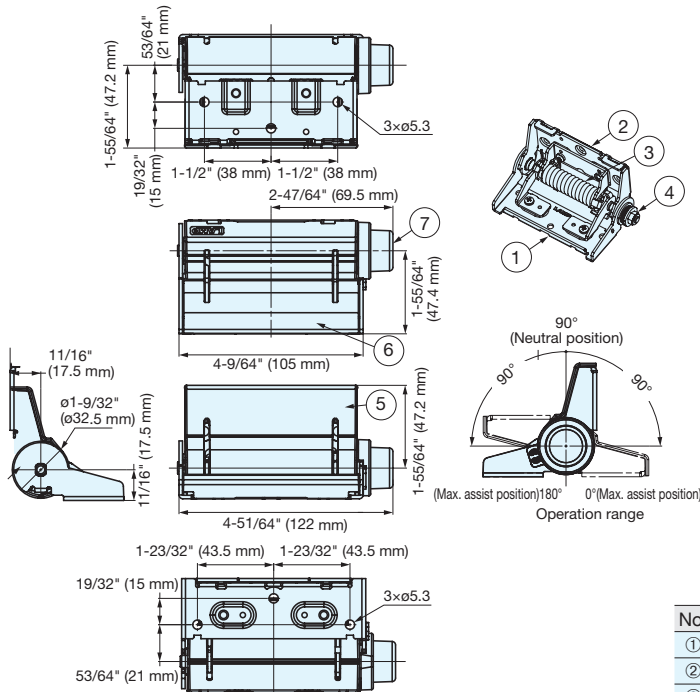
Application Example



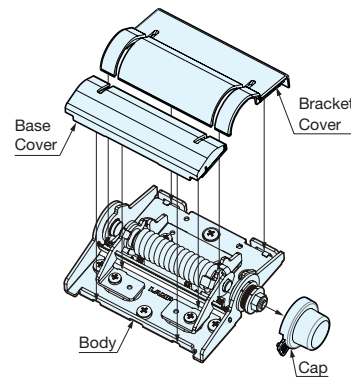
For lids that require wide opening



For analysis devices



Component Parts

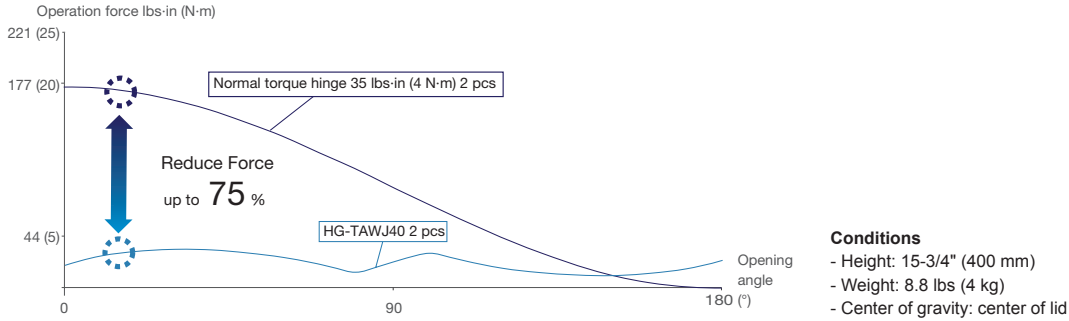


Item No.	Spring-Assist Force	Retaining Torque	Weight (g)
HG-TAWJ40	31~39.9 lbs-in (36~46 kgf-cm)	0~31 lbs-in (0~36 kgf-cm)	385

*Only the retaining torque can be adjusted.

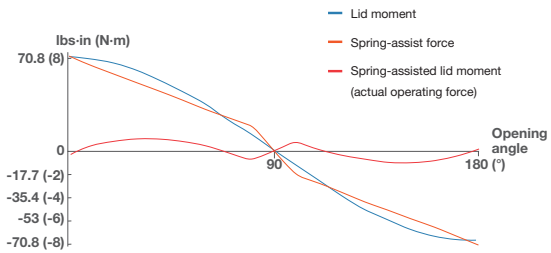
No.	Part Name	Material	Finish
①	Base	304 Stainless Steel/ PBT	Barrel Polished
②	Bracket	304 Stainless Steel	Barrel Polished
③	Spring	Stainless Steel	-
④	Torque Adjustment Nut M6	-	-
⑤	Bracket Cover	PBT	Light Grey
⑥	Base Cover		
⑦	Cap		

Compare Required Force



Lift Assist Mechanism For HG-TAWJ40 (2 pcs)

The spring-assist force offsets the lid moment.

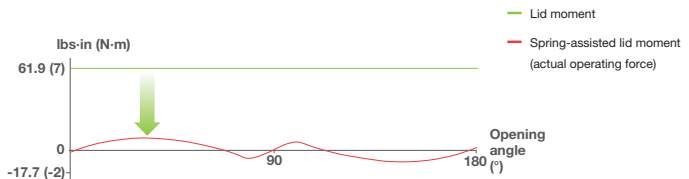


Force Formula

"Spring-assisted lid moment" = "Lid moment" - "Spring-assist force"

Free-stop Mechanism

The retaining torque keeps the lid in position.



Free-stop Formula

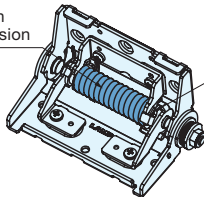
"Retaining torque" - "Spring-assisted lid moment" > 0

Free-stop will not engage for negative values.

Tips for Smoother Movement

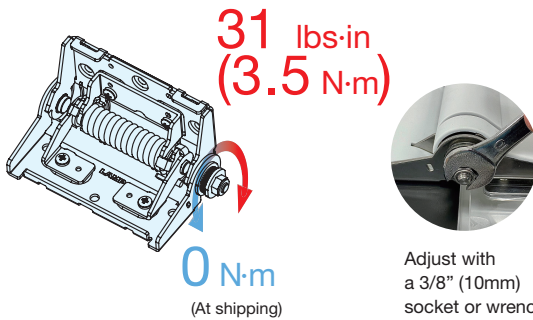
The closer retaining torque is to spring-assisted lid moment, the more lightly a lid moves. (The retaining torque is adjustable.)

Assist with spring tension

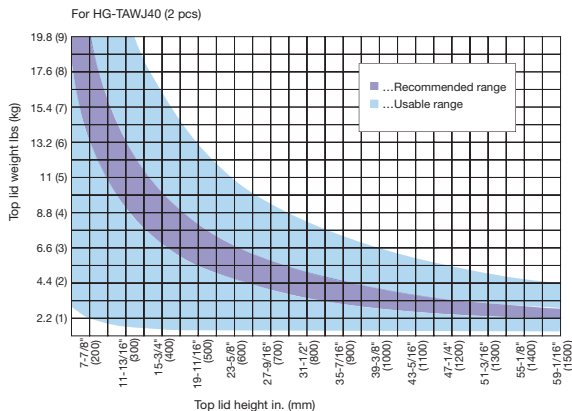


At 90°, the direction of the spring force will change.

Torque Adjustment



Lid Size Guidelines



Hinge mounting position

Calculation condition:
The center of gravity is at the centre of the lid.

Usable range
Free Stop from 0° to 180°.

Recommended range
Free Stop from 0° to 180°; the closer the spring-assisted lid moment (excluding 0° and 180°) is to 0 N-m, the lighter the operation will be.