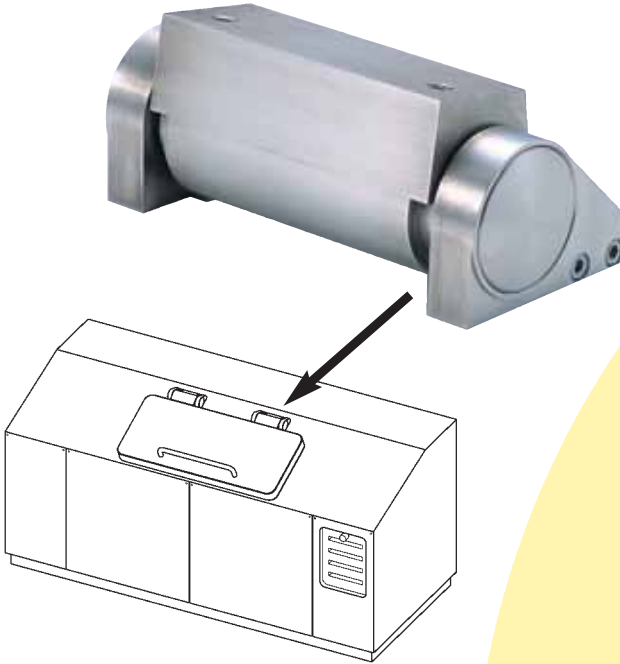


Q110



FEATURES:

- Makes door/lid opening easier
- Built-in damper works to absorb energy of lid slamming shut.
- Proven in over 30,000 cycles.

Technical Notes

Maximum torque: 210 Kgf/cm.

Application: Hatch doors, commercial freezers, etc.

Calculation:

Door moment: $M_t = W \times L / 2 \times \cos \theta$

Hinge moment: $M_h = M_m \times (1 - \theta / 105)$

Remain moment: $M_z = M_h - M_t$

Working force: $F = M_h - M_t / L$

W: Door weight at the gravity point

θ : Door opening angle

L: Door length

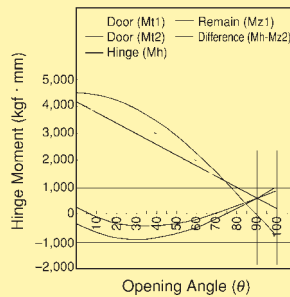
M_m: Hinge moment at door closing (maximum moment)

Remain Moment (M_h-M_t):

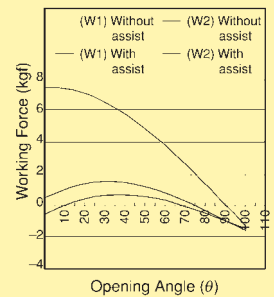
[-] Forcing in closing direction

[+] Forcing in open direction

Assist Hinge Moment



Working Force at Opening Angle



Above graph shows at L = 600mm, W1 = 13kg, W2 = 15kg

