



## CounterBalance

MODULAR TORSION SPRING SYSTEM

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Southco's CounterBalance Modular Torsion Spring Systems combine assisted lifting force and positional stability through the full range of motion for opening and closing to make equipment operation safe and reliable. CounterBalance systems are engineered specifically for controlling the exact weight of heavy doors and panels and can balance heavy loads, allowing them to be lifted and positioned with ease.



**Maintenance  
Free**



**Highly Repeatable  
up to 100K Cycles**



**Resists Temperature Ranges  
from -37°C - 107°C**



**No Power  
Source Needed**



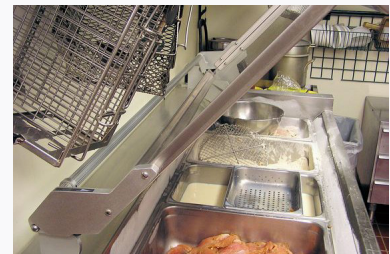
**Enhanced User  
Experience**



**Zero Effort  
Lifting**

### APPLICATION AREAS

- Laboratory equipment
- Gaming machines and kiosks
- Military and armored vehicles
- Architectural doors and panels
- Cooking and food processing equipment



# How does a CounterBalance work?

Southco's CounterBalance Systems take the effort out of lifting and supporting lids, covers, doors and electromechanical equipment. The torsion spring technology counteracts downward force and provides precise balance for user control. When the lid is in motion, mechanical energy is distributed out of the torsion spring and the cams to neutralize the weight of the lid.

## CAM FOLLOWER ARM

Transfers spring energy from torsion rods to cam assembly

## CAM ASSEMBLY

Manages release of spring energy to control motion of lid/door

## ANCHOR MOUNT

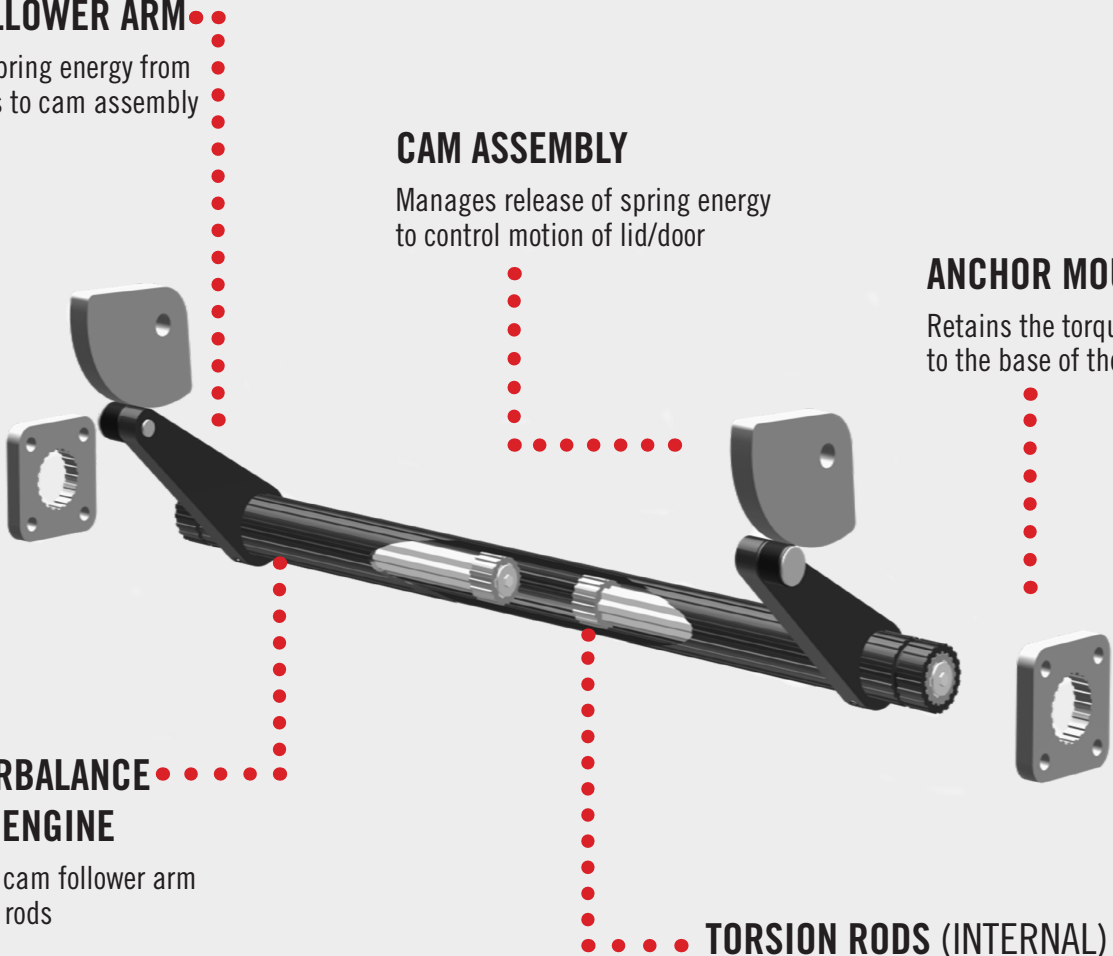
Retains the torque engine to the base of the unit

## COUNTERBALANCE TORQUE ENGINE

Consists of cam follower arm and torsion rods

## TORSION RODS (INTERNAL)

Rods are twisted (pre-loaded) to specific angles to counteract the weight of the lid/door







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