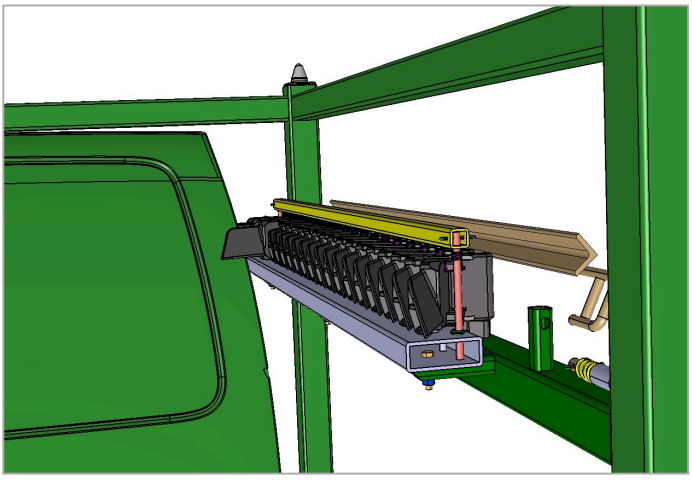
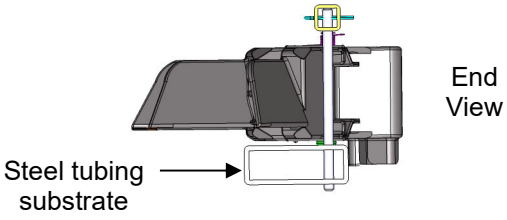
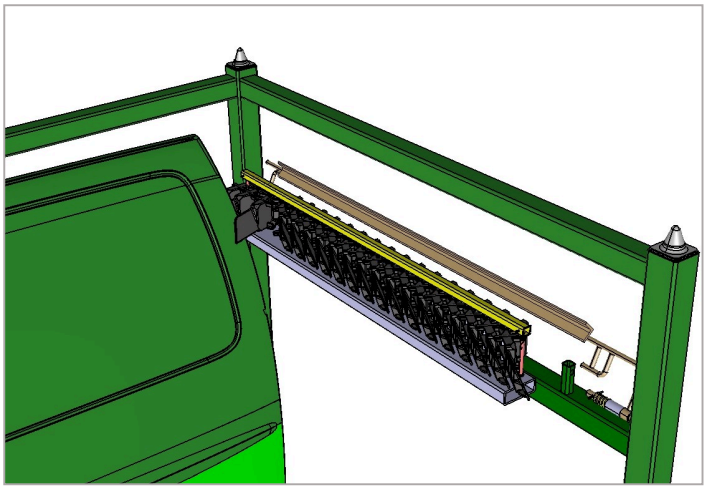
# Horizontal Spring Assisted Flippers Information Sheet

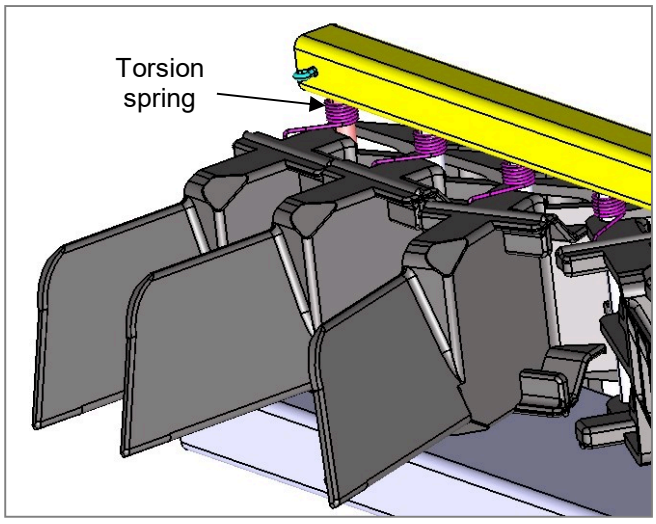


**Flipper Tower Mounted Horizontally**
Most horizontal flipper designs pivot on a pipe and rotate up and out of the way for panel unloading. The Horizontal Spring Assisted Flipper design features flippers mounted with shoulder bolts or clevis pins, similar to vertical flipper tower assemblies. These flippers are assembled within a "cassette" assembly and rotate in the same direction of the panel being moved in or out of the shipping container.




**Built-in Automation**
These flippers do not require manual movement during loading or unloading of the panels. They are designed to move on their own, just like flippers assembled in a vertical tower. The difference in this design is the lack of gravity to assist with movement of the flipper fingers via counter weights during the unloading process. The Horizontal Spring Assisted Flipper design utilizes a spring at each pivot point to provide automatic movement.






**Loading**
As a panel is rested against the "preloaded" flipper, it causes the flipper to rotate further, which by cam action rotates the next flipper into the preload positon, preventing the panel from falling back, while being ready to accept the next panel.

**Unloading**
As a panel is lifted away from the flipper it was resting on, the stored energy in the spring rotates the flipper into the fully open position within the envelope of the assembly providing the clearance needed for removal of the next panel.

Top
View