

# SAFETY BREAKAWAYS

## Transforming a Major Incident to a Minor Inconvenience

Many industries rely on hazardous materials to manufacture goods or supply services are needed in everyday life. Some of these hazardous materials are in a constant flow—for example, moving from the oilfield to the refinery to the bulk plant to the service station to the end-user's house or automobile. The safe, clean, and efficient conveyance of these materials is a top priority for manufacturers because any mishap in this process can have devastating and costly consequences.

One example of a potential mishap includes a pull-away event. A pull-away event occurs when a truck, rail car, barge or ship leaves a terminal site during the loading or unloading operation before the transfer hoses are disconnected. The consequences for the physical facility, plant personnel, and the environment can be catastrophic. The BEST result that can be expected when a pull-away incident occurs is damage to the piping, support structures, and access equipment. The WORST result can include a release of hazardous materials into the environment, fire, and personal injury or death. The adverse effects associated with a pull-away incident are not only immediate, but can extend to include cleanup costs, litigation, and bad publicity for the manufacturer.

To help eliminate the potential for the negative impact of a pull-away event occurring, many manufacturers install safety breakaway couplings on their fluid transfer lines. Safety breakaways are installed on hoses and provide immediate separation of the hose from the truck, rail car, or ship occurs when a predetermined straight or angular pulling force is encountered. At the same time integral valves in the breakaway instantly close to stop the material flow.



OPW Engineered Systems offers breakaway couplers that have provided fluid-handling protection for manufacturers for over 40 years. The NTS-PU coupler consists of two halves—male and female, each equipped with spring-loaded non-return valves that are held together by spring-loaded cams for rapid hookup. When a predetermined straight or angled pulling force is reached, separation will occur. Upon separation, both spring-loaded valves - which are open during product transfer - will close, preventing any product spill or leakage from occurring while at the same time protecting the environment, the loading station and any site personnel that may be in the vicinity.

The NTS-PU coupler is engineered without shear pins so no destruction or damage will occur to the coupling during separation. This also means that after depressurizing and emptying the hose, the coupling can be easily reassembled without the need of any special tools or spare parts. The NTS-PU Series safety breakaway coupler is available in a range of standard sizes, materials, and seal options\*. Following are the specifications:

Feature	Specification
Sizes	1", 2", 3", 4"
Max. Pressure	360 psi
Materials	316 Stainless Steel, Aluminum
Seals	Fluorocarbon, EPDM, FFKM Chemraz®

*OPW Engineered Systems stocks a broad range of pull-away sizes and seal materials for immediate delivery. Other styles, sizes, and seal options are available.*

*Contact our Customer Service Team at (800) 547-9393 or [opwes.insidesales@opwglobal.com](mailto:opwes.insidesales@opwglobal.com) for more information.*



**About OPW Engineered Systems:** OPW Engineered Systems is dedicated to solving difficult fluid-handling challenges through the development of world-class fluid-handling systems and components that have been thoughtfully designed to prevent safety hazards from occurring when loading and unloading railcars, tank trucks and immediate bulk containers.