



OIL & GAS



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ARTA 
more than stainless steel

NTS[®]-PU

Emergency Breakaway Coupling
for non-destructive protection
against pull-away incidents



www.arta-us.com



Our Company

For more than 50 years, ARTA has been a leader in the manufacture of innovative couplings, and system solutions. We service the chemical, petrochemical, pharmaceutical and food industries. Our growth – as well as our product and accessory improvements and upgrades – are the result of dedicated development and close collaboration with our clients. We offer technical support at all stages: conception, development, and aftermarket.

Areas of Applications

The ARTA NTS®-PU system is designed to transport liquids, gases, and solid products. In the event of an emergency pull off, the ARTA NTS®-PU protects the operator, the equipment and the environment against damages and leaks. The ARTA NTS®-PU controlled release between the vehicle and the equipment is activated when a tank truck, a railcar or ship leaves its envelope of operation.

Structure and Function

The ARTA NTS® breakaway is primarily triggered by tensile force acting on the hose loading arm, but an excessive increase in line pressure can also trigger a controlled separation. It is self-activating without the need for external energy.

Both ends of the emergency breakaway coupler are equipped with self-closing check-valves, preventing spills. At the same time NTS protects the loading rack from being torn down.

Non-Destructive Release

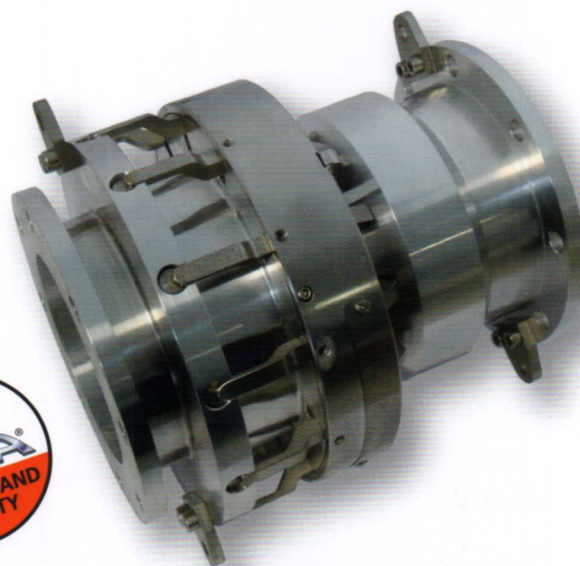
The ARTA non-destructive system (no pins) ensures a safe and quick release. No components are destroyed.

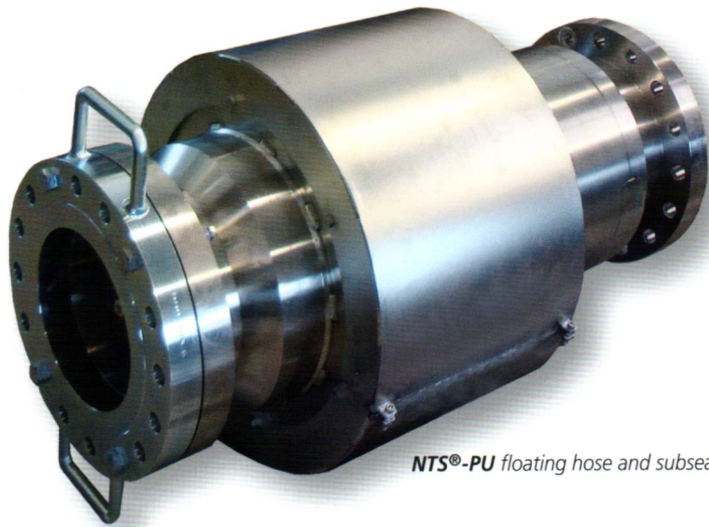
Fast and Simple Onsite Assembly

No special tools or spare parts, such as safety or break bolts, are required after an emergency breakaway. Reassembly time is minimal.

Maximal Flow

The flow optimized design of the NTS®-PU minimizes pressure loss while maximizing transfer volume.





NTS®-PU floating hose and subsea

Technical Specifications

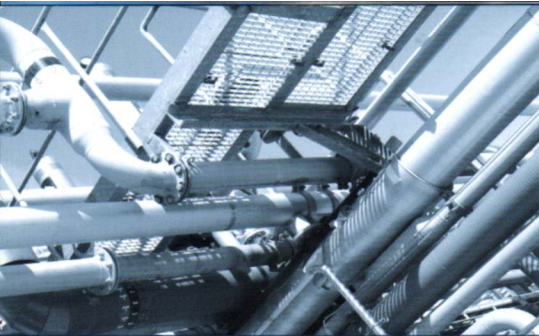
Sizes:	1" - 16"
Pressure Levels:	232 psi (PN16) and 360 psi (PN25)
Temperature Ratings:	-58 °F to +212 °F (-50 °C to +100 °C)
Casing Materials:	Brass, aluminium, stainless steel, special alloys
Seal Materials:	Elastomers, FMP (e.g. Viton®), PFE-Perfluoro Elastomer (e.g. Chemraz®), EPDM, NBR
Triggering Mechanisms:	a) Pull force b) Excess pressure c) Combination of both
Connections:	Threaded or Flanged 1" to 4" Flanged 1" to 16"
Approvals:	TUV, CE
Options:	a) Single side valve b) Open (no valves)

The **NTS®-PU** emergency release coupler can be used for gas and liquid marine applications.



*Example of application:
Installation of a 8" NTS®-PU*

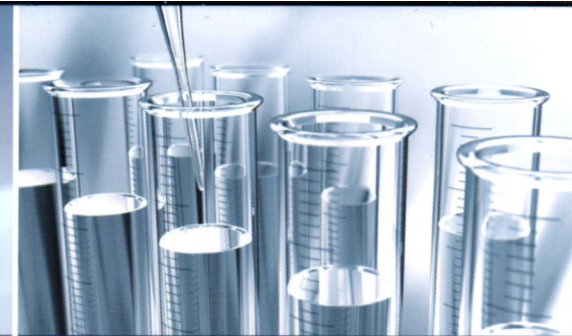
Approved by: TUV, CE



CHEMICALS



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PHARMA



NTS®-PI - Release under straight pull – no angle.



The NTS®-PI enables a safe, non-destructive spill-free breakaway of hoses and loading-arm systems- regardless of system pressure. It is typically built into the hose string, with the release triggered by an axial tensile load.

Both halves of the NTS®PI device are equipped with spring-loaded check valves. In case of an emergency breakaway, these valves prevent product spills on both ends. A manual release mechanism is activated by the axial tensile load and disconnects the system without spills.

The integrated swivel function protects flexible hoses and loading arms. And because it does not require spare parts or special tools, post-breakaway reassembly is quick and safe.



NTS®-SZ - Cable Release at all angles, line pressure independent



The ARTA NTS®-SZ is designed to transfer liquids, gases and solid product. A cable, slightly shorter than the line to be protected, enables a separation independent from the line pressure or any pull angle which makes it the most predictable and reliable system in the industry.



NTS®-SZ-CS - For aggressive products. Release by cable pull.

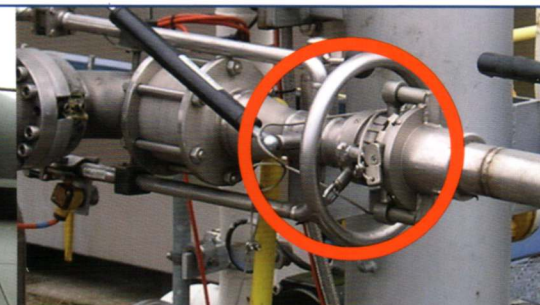


The NTS®-SZ-CS works under the same principle as the NTS®-SZ (cable pull) and is designed to handle aggressive media – organic, inorganic, acid, or bases.

Examples of **NTS®-PU** applications

Examples of **NTS®-PI** applications

Examples of **NTS®-SZ** applications



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The illustrations reproduced above may differ from the original. Specifications correspond to the current state of development. Subject to change.

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**Armaturen- und
Tankgerätee** GmbH & Co.KG



ARTA Group Inc.
4801 Woodway Drive 300E · Houston, Tx-77056
Tel.: 713-964-2616 · Fax: (800)-934-3178
avkeitz@arta-us.com · www.arta-us.com