

**Emergency
Release
Couplings**

**DN 32/50
DN 19**



WALTHER emergency release coupling n.b. 32/50

Description:

The loading of media between stationary tanks and movable containers such as tank vehicles, railway carriages or ships is an actual topic of safety. Due to faulty operating sequence the mobile container can unintentionally move away from the stationary tank. Connection lines can rupture and cause considerable danger to people and environment. To prevent such accidents it is advisable to install defined points of separation in form of quick release couplings in the connection lines.

The purpose of such points of separation is

- to disconnect the line at planned points when a calculated pulling force is exceeded
- quickly closing valves prevent further spillage from the disconnected line parts
- to avoid squirt effects and considerable leakages when disconnecting

WALTHER emergency release couplings fulfil all these requirements and offer the user moreover the advantage, that both coupling halves can be reconnected by hand after an emergency separation. No damaged components (e.g. shearing bolts or similar) must be exchanged as it is the case in many other emergency separation systems.

WALTHER emergency release couplings are supplied in nominal bore 50 (e.g. for transport line) and nominal bore 32 (e.g. for gas displacement line) with TÜV certificate as emergency separation system for a nominal pressure PN 25.

According to the TÜV certificate WALTHER emergency separation couplings are suitable for filling and unloading of transports tanks with liquid gas and for connection to tank vehicles for dangerous goods.

The two solution possibilities:

1. Disconnection via a separate stop wire

Axial pulling forces on the hose during the refuelling process are led onto the locking sleeve of the quick release coupling by means of a stop wire. This is achieved in such a way that the stop wire is shorter than the hose line in every operating state. In case of a tension load the stop wire is tightened and pulls back the locking sleeve of the emergency release coupling. Thus the two coupling halves become unlocked and disconnected and the valves on both sides close automatically.

The necessary break away force increases with the working pressure and is approx. 200 N for a nominal bore 50 mm when depressurized and approx. 3355 N for a working pressure of 25 bar (362 psi).

2. Disconnection without stop wire

The principle of the quick disconnection is the same as before, only the pulling forces are directly led onto the locking sleeve via the hose. Prerequisite is that high-quality and breakproof hoses are used whose resistance to breaking is far over the break away force of the emergency release couplings.

The necessary break away force increases with the working pressure and is approx. 1200 N for a nominal bore 50 mm when depressurized (nominal bore 32 mm approx. 760 N) and approx. 4170 N for a working pressure of 25 bar (nominal bore 32 mm approx. 1.705 N).



WALTHER emergency release coupling n.b. 19 for fuel gas stations

In order to avoid gas releases, e.g. due to hose rupture of unintentionally moving vehicles the demand was raised for points of quick separation.

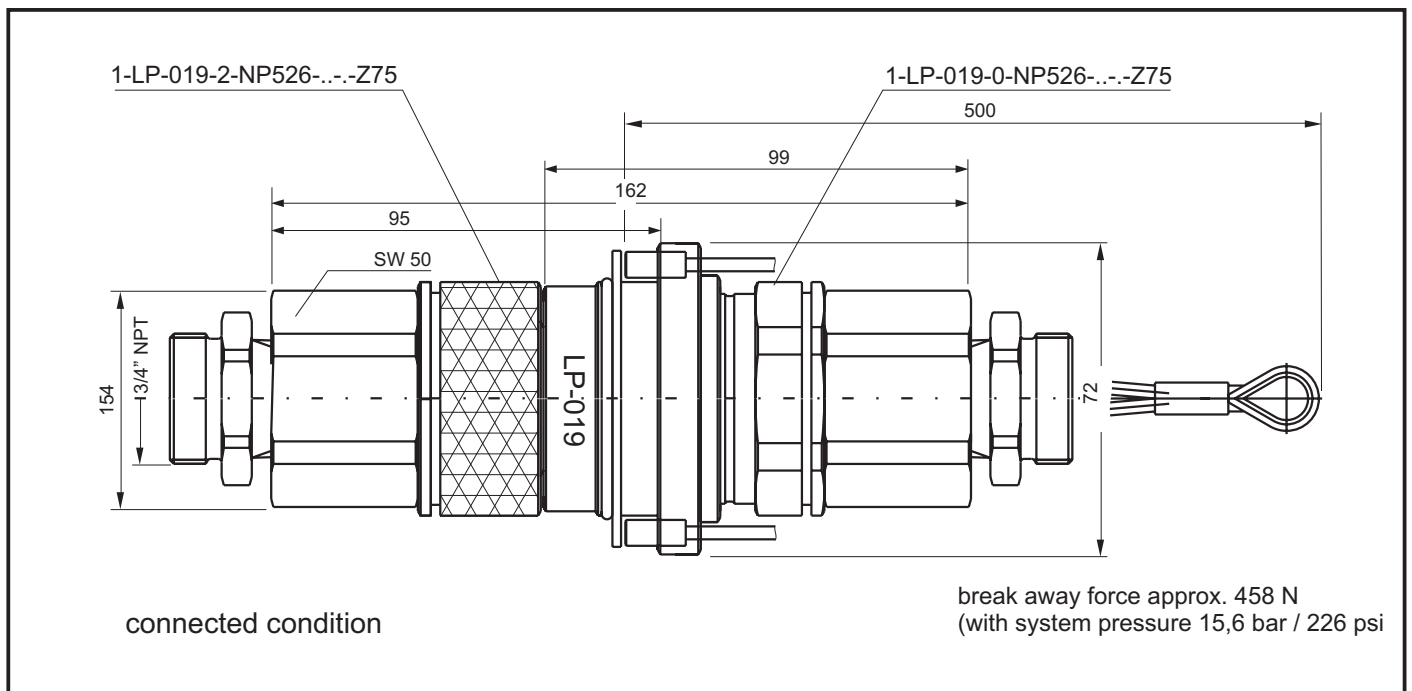
In the technical rules compressed gases TRG 404 "plants for filling of fuel gas tanks, liquid gas stations", issue October 1998 section 3.3.7 calls for

"A suitable point of quick separation must be installed at liquid gas stations in or before the filling hose which comes into operation from a specific tension load and thus prevents gas release on both sides. The suitability of the point of quick separation is to be proved by a type test or an individual test carried out by an expert."

With the VdTÜV-Certificate of 09.03.2001 the type-test approval mark TÜV.ST.BCD.006-99.LPG-PN 40 was granted to WALTHER-PRÄZISION for the point of quick separation / break away coupling LP-019-...-Z75 made of stainless steel and brass.

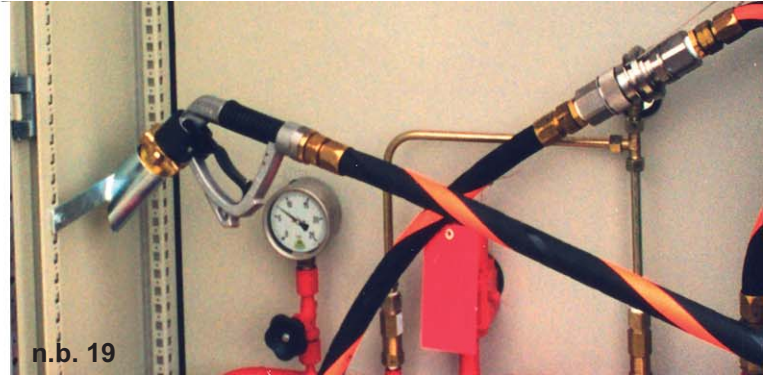


With this it is possible to retrofit liquid gas stations with the point of quick separation prescribed by law without additional individual test through an expert.



Use our many years of experience in order to find a secure solution in this sensitive field.

For each application the best suitable coupling



... and more than 30.000 other variations for all applications!



WALTHER-PRÄZISION 10/2003 • Änderungen vorbehalten • PB

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