

## INDUSTRIAL FITTINGS - couplings

### Oil and gas extraction, other couplings

Couplings for drilling fluid tanks are used for drilling operations around the world. The drilling fluid is necessary to carry the cuttings to the surface, cool the drilling equipment in the well and to stabilize the well bore. The tanks within a drilling fluid system must be leak tight, easily twist to close or twist to open for diameters from 4 up to 16 inch. There are two types of connections. The first type is „pneumatic” (Seal-O-Grip) - a rubber seal is inflated to achieve leak tight connection between the pipe and the tank. The second type of connection, Hammerseal coupling, seals on o-ring when a nut is tightened.



#### Seal-O-Grip

**Material:** Carbon steel  
**Seal:** NBR  
**Working press:** 11.4 bar (170 PSI)

Seal-O-Grip is an air-inflatable coupling intended for suction or return lines of low pressure formation fluid or drilling fluid. The steel body of the coupling is welded into a drilling fluid tank or manifold pipeline. The connection is leak tight as soon as the seal is inflated, even if the pipe is not perfectly aligned. The seal made of NBR rubber is resistant to oil and abrasion. It can be inflated up to 13.8 bar pressure up against the external diameter of the connecting pipe. The use of the couplings speeds up the connection process and eliminates the need to use low pressure flange connections.



#### Hammer Seal

**Material:** Carbon steel  
**Seal:** NBR  
**Working press:** 10 bar (150 PSI)

Hammer Seal coupling is intended for fast connection of drilling fluid tanks, with no flanges used. Even if drilling fluid tanks are not perfectly aligned, Hammer Seal coupling ensures tight, leakproof connection. A female unit with male thread must be welded into the tank, whereas a connecting pipe is equipped with a nut with female thread and o-ring. The coupling provides the perfect, leakproof connection as soon as the nut with o-ring is tightened.