



As the demand for alternative materials increased the problem encountered was that the production method of pressing flexible material in between two metal flanges, is not suitable for all materials because of their divergent qualities.

To create the most leak tight connection a bolted flange was necessary, but given the time consuming montage wouldn't create the most desired solution. To solve this problem the LFDDC was created, combining both the advantages of a bolted flange and a quick connect coupling.

The LFDDC is a connector that is assembled using different components and at least one side is fitted with a Triclamp flange connection. The Triclamp connection has the advantage that it is easy to disconnect.

As an added benefit the production method used for this new type of connector, allows us to reuse the metal parts when the connector needs replacement. The flexible material can be replaced, making for a sustainable solution.

Advantages

- Leak tight
- Quick assembly
- High chemical resistance
- High temperature resistance
- High pressure resistance
- CIP cleaning
- Anti Static
- Comes with 2.2 and 3.1 certification

All the different parts that compose the connector make it the most leak tight connector in our assortment.

In addition this connector has been tested and certified and subjected to a specially designed standard operation procedure and traceability program, making it the safest product to use in any high risk production process. Risks could include explosion, leaking of dangerous chemicals, extremely hygienic processes for foodstuffs and so on.



Technical specifications

The LFDDC is a combination of two types of connections at the end by using a LFDDC adapter. The LFDDC coupling adapter is a Triclamp coupling and a flat flange with bolt holes on the other end.

The flexible sleeve is fitted with a thermally formed, glued or welded flat flange made from the same flexible material as the sleeve. This flexible flange is then fitted between two hard flanges made from either metal or plastic with a special seal for the LFDDC adapter.

The bolt flange connection is fitted with a conically shaped inside so there are absolutely no edges or dead corners in the transition from adapter to flexible sleeve; to create optimal hygiene, aerodynamics and make it easy to clean.

After the sleeve is mounted on the LFDDC flat flange, the Triclamp side can be connected to the machine that is also fitted with a Triclamp ferule, thus making it easy to assemble.

A wide range of materials, special shapes, longer lengths, earthing, countersunk bolts, threaded flanges are available, making the variations to the LFDDC connector endless.

There is also the possibility to use other flange types, like dairy couplings, aseptic couplings, Jacob couplings, Ehedge approved flanges, 3A sanitary approved flanges, reinforcement/anti collapse rings, explosion jacketing, seamless sleeves, pharmaceutical approved materials, fire retardant materials.



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Testing & Certification

Every LFDDC is put together with the greatest care in a clean production facility. All tools are used exclusively for LFDDC assembly to avoid contamination with silicones and/or glass fibres.

To test and guarantee the quality of the LFDDC a Standard Operation Procedure (SOP) is written for both Filcoflex production staff and the clients technical service employees that are responsible for maintenance and repairs.

All components are supplied with 3.1 and 2.2 certification. All parts are traceable and every compensator is numbered with its own unique serial number. Every LFDDC compensator is subdued to a pressure test before leaving the factory. This process is documented, filmed and photographed for review. All results are documented per product and serial number on a test certificate that is matched to the specific serial number.



Electrostatic charge increases explosion risk, therefore LFDDC is available in conductive materials. Every conductive LFDDC is tested on its electrostatic properties before leaving production. This process is documented and photographed.

Adapter flange	- Hastelloy - PTFE - Duplex - RVS 316L 1.4404 (standard) - Polyurethane - HDPE Polyethylene - RVS304 - Steel - Titanium
Flexible sleeves + flanges	- heat resistant materials - antistatic materials - explosion pressure resistant - pressure resistant - chemical high resistant - super flexible - transparent - Silicone with or without ply/reinforcement - PVC films - Polyurethane films - Rubbers - PTFE films - Woven polyester and Glass fibres with thermoplastic, silicone or rubber coating
Counter flange with hole pattern	- Hastelloy - PTFE - Duplex - RVS 316L 1.4404 (standard) - Polyurethane - HDPE Polyethylene - RVS304 - Steel - Titanium
Bolts & Nuts	- Nuts - Threaded flange - Bolts: - Hexagon bolts - Bolts with countersunk head - Bolts with Allen key - Bolts with round head and flange - Bolts from several materials: I. V2A II. V4A III. Titanium



Special features

In addition to this a number of special features can be added to the fitting, such as:

- Earthing/Grounding
 - I. Electrostatic conductive materials
 - II. Earthing/Grounding wires/litizes between the flanges
- Assembly points and brackets on the flanges with:
 - I. Electromagnets
 - II. Rods for movement restriction
 - III. Sensor bracket
- Explosion shield and/or spray shield against leakage