HPF - High Performance Flange

New Generation of Non-Weld Flange Connections

SAFE

- Designed for highest Vibration and Pressure Peak Performance
- Marine Type Approval DNVGL / BV / LR
- Well established in Press and Heavy Industrial Markets

Fast

- Non-Welding Soft Sealed Flange Connections
- On-Site Flaring of Heavy Wall High Pressure Pipes
- User friendly Machine Operation

Technical Data

Pressure Rating 420 bar
Tube OD up to 150 mm
Tube WT up to 20 mm
Flange Sizes ¾“ to 5“
ISO 6162-1/-2
ISO 6164

Easy

- Flexible and Easy ON-Site Assembly
- Alternative to Retaining Ring Connections
- Minimum Operation Training Required

HPF Machines

HPF 120

- On-site and workshop machine
- Tube Dia. 25 - 90 mm
- Weight: 415 kg

HPF 170

- Stationary workshop machine
- Tube Dia. 97 - 150 mm
- Weight: 1.100 kg

ENGINEERING YOUR SUCCESS.

Parker‘s mechanical flange system for the toughest requirements
Parker‘s HPF system has been specially designed and developed to meet the requirements of toughest hydraulic requirements: high performance and high pressure.

The system
The HPF system is available in diameters from 25 to 150 mm and wall thicknesses up to 17.5 mm.
The system is designed for flange patterns according to ISO 6162-1 (SAE J518, code 61), ISO 6162-2 (SAE J518, code 62) and ISO 6164.

Learning from nature
The best solutions for complex design problems can often be found in nature. The flaring of a tube is similar to the shape of a branch where it joins the trunk of a tree: The tube is flared by hydraulic axial pressure giving it a parabolic shaping, increasing from 10° up to 37°. The initial gentle incline of the shaping guarantees additional safety against strong system vibrations.

The HPF Connector - Strong teamwork for the toughest demands
The HPF flanges are specially hardened with an adapted internal grip contour. An insert is placed into the flared end of the tube. On the port side the sealing is guaranteed selectively by a special profile seal or an O-ring seal, on the tube side by an O-ring seal. The application of these soft-sealing elements both on the port side and the tube side guarantees the gas leak tightness of the HPF connector.

The system
The HPF system is available in diameters from 25 to 150 mm and wall thicknesses up to 17.5 mm.
The system is designed for flange patterns according to ISO 6162-1 (SAE J518, code 61), ISO 6162-2 (SAE J518, code 62) and ISO 6164.

Tube forming
The tube forming is performed by the Parflange® HPF machines; they can either be purchased or rented for a certain period of time. If required, assembly of ready-to-install straight or manipulated HPF tube lines can be carried out by a Parker CPS Piping Center.

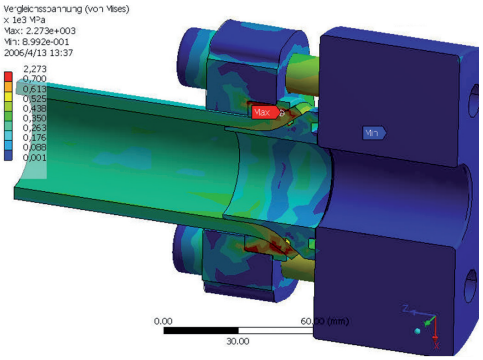
HPF: Performance
The system is generally applicable with a working pressure up to 420 bar. As illustrated in the diagram forces are spread out ideally on the components. The special profile seal is particularly resistant to gap extrusion, in contrast to conventional O-rings.

Flanging instead of welding: Error free and riskless assembly
Nowadays many tube connections are welded. However, as even the best welding operator may make a mistake, each welding seam has to be tested, leading to an enormous loss of time and a significant increase of costs. Even finding trained staffed may be critical. Parker‘s HPF system offers various advantages compared to the welding solution:

- Welding galvanic zinc-plated tubes is always critical. With HPF zinc-plated tubes can be used (no further painting necessary).
- Welding seams must be descaled and often be stained (environmental problems!).
- Welded tubes need to be cleaned, the tubes assembled with HPF do not require any cleaning.
- The flanging process does not cause noxious gases, thus eliminating explosion and fire hazards.

Cr(VI)-free corrosion protection
All components do of course have surfaces which are free of Cr(VI) platings. Parker is highly aware of its responsibility for the environment and human health. Therefore Parker has completely renounced the use of Cr(VI) containing surfaces.

Parker the system supplier
Parker products are ever globally available, regardless which one is needed. Being the customers‘ partner is an essential part of Parker‘s self-concept which includes development, design, implementation and maintenance activities for customised projects. The service even comprises stock-keeping and close on-site support for the customer. All this leads to significant reduction of expenses



Contact Information:

Parker Hannifin
Manufacturing Germany GmbH & Co. KG
Fluid Connectors Group Europe
High Pressure Connectors Europe
Am Metallwerk 9
DE - 33659 Bielefeld, Germany
Tel.: +49 (0) 521 4048 0
Fax.: +49 (0) 521 4048 4280
email: ermeto@parker.com
www.parker.com/hpce