



TEST COUPLINGS

Literature



Introduction:



Figure 1 Stauff Test Coupling

Stauff test coupling connection does not require any tools to connect the coupling to the system. It can be carried out during operation under full system pressure which is up to 9135 psi or 630 bar. The working pressure is subjected to the type of coupling. It is used to monitor and control pressure. The connection thread is made according to ISO 15171-2 standard. It is applicable for high and low pressure systems.

Test coupling is closed with a threaded nipple in a fully automated process during operation production. It is not crimped after insertion of the internal valve components and seals which secures the proper and reliable functioning of the couplings under permanent load operation. The other competitive influence of using test coupling is the vibration protection feature which prevents self-loosening of the protective metal or plastic cap caused by vibrations in the system.

Materials:

Test coupling body is made of carbon steel and stainless steel SS316. The ball material is stainless steel. The carbon steel zinc nickel surface coating provides a reliable surface protection to it. There are two types of material grades available for stainless steel.

- Steel zinc/nickel plated – W3
- Stainless steel 1.4305/AISI 303 – W4
- Stainless steel 1.4571/AISI 316Ti – W5



Figure 2 Stauff Test Coupling

Advantages of using Stauff test couplings:

The check valve integrated into the test coupling opens only after connection of the measuring and display device with suitable test hoses or adapters, which includes the complete product range. This guarantees a reliable and safe sealing of the connection without any risks of leakage or fluid escaping from the system.

- Before ball check is open, it is leak-proof connection
- Simple connection to measurement, control and switching devices operation
- Test system at system working pressure
- Self-locking metal protective cap

How to order test coupling?

There are three common sealing types to take note when ordering a test coupling.

| Seal Materials | NBR | FKM | EPDM |
|------------------------|-----------------|-----------------|---|
| Equivalent | Buna-N | Viton | Ethylene Propylene Diene Monomer Rubber |
| Temperature Range (°C) | - 20°C to 100°C | - 20°C to 200°C | - 40°C to 150°C |
| Temperature Range (°F) | - 4°F to 212°F | - 4°F to 392°F | - 40°F to 302°F |

Table 1: Seal Material

The test coupling is suitable for **hydraulic oils** and **other mineral oil base fluids**. Users may consider compatibility of seal type material before installation. The complete test coupling is available with a hexagonal protection cap made of steel or plastic material.

| Stauff Series | Types | Connections |
|-------------------|----------------|-----------------------------|
| SMK-20 Type G | Test Coupling | Straight 24° Fitting |
| SMK-20 Type K | Test Coupling | 24° Taper / O-ring (DKO) |
| SMK-20 JIC Type K | Test Coupling | 37° JIC Connection |
| SMK-20 JIC Type G | Test Coupling | Straight 37° JIC Connection |
| SGV-JIC Type FM | Swivel Run Tee | 37° JIC Connection |
| SMK-20 Type ORFS | Test Coupling | ORFS Connection |
| SSK-20 | Bulkhead | - |
| SAD-20 | Test Adaptor | - |
| SMA-20 SMD-20 | Gauge Adaptor | - |

Table 2: Test Coupling with Ball Check Order Option

| Stauff Series | Types | Connections |
|----------------------|----------------|--------------------------|
| SKK-20 | Test Coupling | Male Threaded Stud |
| SMK-20 Type G | Test Coupling | Straight 24° Fitting |
| SKK-20 Type K | Test Coupling | 24° Taper / O-ring (DKO) |
| SMK-15 | Test Coupling | Male Threaded Stud |
| SMK-15 Type G | Swivel Run Tee | Straight 24° Fitting |
| SMK-15 Type K | Test Coupling | 24° Taper / O-ring (DKO) |
| SSK-15 | Bulkhead | - |
| SGV-JIC Type FM | Swivel Run Tee | 37° JIC Connection |
| SAD-15 | Test Adaptor | - |
| SMA-15 SMD-15 | Gauge Adaptor | - |

Table 3: Test Coupling with Piston Valve Order Option

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Catalogue Version: 2021

