



Marine & Offshore

Certificate number: 23411/C0 BV

File number: ACM 135/2681/23 - 26

Product code: 2170H

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

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## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**Parker Hannifin Manufacturing Germany GmbH & Co. KG**  
Bielefeld - GERMANY

*for the type of product*

**MECHANICAL JOINTS - COMPRESSION COUPLINGS - PRESS TYPE**  
PARFLANGE F37 FLARED CONNECTIONS

**Requirements:**

BUREAU VERITAS Rules for the Classification of Steel Ships

BUREAU VERITAS Rules for the Classification of Offshore Units

*This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 18 Mar 2026**

**For Bureau Veritas Marine & Offshore,**

At BV HAMBURG, on 18 Mar 2021,

Udo Storm



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 4 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

**Parflange F37 flared connections ISO 6162-1/2 and ISO 6164 footprint**  
**Consist basically of a flare flange, flare flange connections, F37 seal, bonded seal or o-ring.**  
**Bolting according to SAE or DIN**

1.1 Identification and technical data:  
 1000 PSI system

File number	Type	Size [Inch]	Max. working pressure [bar] *
ACM 135/2681/23	F37-124	1 ½	70
	F37-132	2	70
	F37-140	2 ½	70
	F37-148	3	70
	F37-156	3 ½	70
	F37-164	4	70
	F37-180	5	50
	F37-196	6	50

\* Maximum Working Pressure depends on pipe material and wall thickness

SAE 3000 system

File number	Type	Size [Inch]	Max. working pressure [bar] *
ACM 135/2681/24	F37-308	½	350
	F37-312	¾	350
	F37-316	1	350
	F37-320	1 ¼	280
	F37-324	1 ½	280
	F37-332	2	280
	F37-340	2 ½	210
	F37-348	3	210

\* Maximum Working Pressure depends on pipe material and wall thickness

SAE 6000 system

File number	Type	Size [Inch]	Max. working pressure [bar] *
ACM 135/2681/25	F37-608	½	420
	F37-612	¾	
	F37-616	1	
	F37-620	1 ¼	
	F37-624	1 ½	
	F37-632	2	

\* Maximum Working Pressure depends on pipe material and wall thickness

ISO 6164 system

File number	Type	Size [Inch]	Max. working pressure [bar] *
ACM 135/2681/26	F37-432	2	400
	F37-440	2 ½	
	F37-448	3	

\* Maximum Working Pressure depends on pipe material and wall thickness

1.2 Material:

Flared flange	Flared flange connection	Soft seal
Steel, zinc plated	Steel, zinc plated Cr(VI)-free Stainless Steel	NBR
Cr(VI)-free		FKM
Galvanized hot dip zinc		PUR
Stainless Steel		

## 1.3 Temperature range for the used Materials:

<b>Material</b>	<b>Min. allowable Temperature [°C]</b>	<b>Max. allowable Temperature [°C]</b>
Steel	-40	+200
Stainless steel	-60	+400
NBR	-35/ -40*	+100/ +120*
FKM	-25/ -35*	+200
PUR	-35	+100/ +120*

\*Ambient temperature of hydraulic and pneumatic applications

For more details, such as pressure reduction factors in relation to temperature see manufacturer's catalogue 4162-5/UK.

**2. DOCUMENTS AND DRAWINGS:**

According to following documents:

<b>Designation</b>	<b>Dokument no.</b>
Manufacturer's catalogue	4162-5/UK

**3. TEST REPORTS:**

According to the following type tests:

- Repeated assembly test, leakage test, tightness test and burst pressure test witnessed by an IACS member, performed at Parker Hannifin's premises in Bielefeld / GERMANY.

- Impulse pressure test on pipe connections performed at Brunel Car Synergies GmbH in Bielefeld / GERMANY.  
Test reports no. 2A2006-0634 and 2A2006-0768.

- Vibration test performed at IMA Materialforschung und Anwendungstechnik GmbH in Dresden / GERMANY.  
Test report no. C51.2/06.

- Pull-out test performed at IMA Materialforschung und Anwendungstechnik GmbH in Dresden / GERMANY.  
Test report no. C139/07.

- Vacuum and fire endurance test performed at IMA Materialforschung und Anwendungstechnik GmbH in Dresden / GERMANY. Test report no. C51.1/06.

- Pressure pulsation test performed at IMA Materialforschung und Anwendungstechnik GmbH in Dresden / GERMANY.  
Test report no. C51.3/06.

- Fire endurance test witnessed by an IACS member, performed at laboratory of Dr. -Ing. T. Bäumer GmbH in Herford / GERMANY. Test reports no. IBB 486 and IBB 488.

**4. APPLICATION / LIMITATION:**

4.1 The flange connections intended to be used for Marine and Offshore piping systems.

4.2 The flange connections are to be at any time accessible.

4.3 For the bulkhead flanges, the requirements given in BUREAU VERITAS Rules have to be complied with.

4.4 When soft seals are used for bulkhead unions, it must be ensured that water, oil or fire cannot penetrate through the watertight bulkheads or decks.

4.5 In all cases, the associated pipes are to be suitably adjusted, aligned and anchored.

4.6 The manufacturer's assembly instructions are to be complied with. Tube preparation and final installation must be conducted by personal which is trained and currently certified by Parker Hannifin. All assemblies must be made with machines that are approved by Parker Hannifin.

4.7 The nature of materials, joints included, should be suitable for the intended service.

#### **5. PRODUCTION SURVEY REQUIREMENTS:**

- 5.1 The flange connections are to be supplied by **Parker Hannifin Manufacturing Germany GmbH & Co. KG** in compliance with the type described in this certificate.
- 5.2 This type of product is within the category HBV of BUREAU VERITAS Rule Note NR320 and as such does not require a BUREAU VERITAS product certificate.
- 5.3 **Parker Hannifin Manufacturing Germany GmbH & Co. KG** has to make the necessary arrangements to have its works recognised by BUREAU VERITAS in compliance with the requirements of NR320 for HBV products.
- 5.4 For information, **Parker Hannifin Manufacturing Germany GmbH & Co. KG** has declared to BUREAU VERITAS the following production site:  
**Parker Hannifin Manufacturing Germany GmbH & Co. KG, Bielefeld / GERMANY**
- 5.5 Water pressure test should be carried out through watertight bulkhead for bulkhead unions.

#### **6. MARKING OF PRODUCT:**

Each flange connection is to be clearly identified to avoid any wrong utilization as manufacturer's instructions:

- Manufacturer's name or logo
- Model
- Size
- Nominal diameter
- Nominal pressure

#### **7. OTHERS:**

- 7.1 It is **Parker Hannifin Manufacturing Germany GmbH & Co. KG's** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.
- 7.2 This certificate supersedes the Type Approval Certificate No. 23411/B1 BV issued on 01 Aug 2016 by the Society.

\*\*\* END OF CERTIFICATE \*\*\*