

Type Approval Certificate



This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the GL Type Approval System.

Certificate No. **35 658 - 84 HH**
Company **BAC Valves S.A.**
Tapis, 126
17600 Figueres, SPAIN

Product Description **Cryogenic Valves**

Type **FB, FBC, FB-L + Extended**
PQR-i + Extended

Environmental Category **None**

Technical Data / **TECHNICAL DATA**

Range of Application

Materials:

Body **A 351 (CF - 8M), 1.4408**

Ball **A 351 (CF - 8M), 1.4408**

Stem **1.4401**

Seat **PTFE MOD. / PTFE MOD+CAR**

Seals **PTFE / Graphite**

RANGE OF APPLICATION

The above mentioned type of ball valves is type approved for the use in process and cargo systems on liquefied gas tankers as follows:

Type	FB, FB-L, FBC	PQR-i
- Size range	DN 15 to DN 200	1/2" to 10"
- Pressure range	PN 16, PN 40 / 150/300 psi	150 / 300 psi
- Temperature range	- 196°C to +180°C	

Test Standard **VI-7-8 Guidelines for the Performance of Type Approvals for Components and Systems of Mechanical Engineering:2008.**

Documents
- Test report No. 0045/84/30204 BAC, dated 06.09.1984, B-Test report no.:65 dated 12-11-2008, B.V. Ref.: 11/EK2/08/0026/01, B.V. Ref.: 1/EK2/08/0043/01
- Drawings refer to page 2 and 3

Remarks **Each valve is subject to final inspection by GL surveyor at manufacturers work shop.**

Valid until **2011-12-05**

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File No. **II.A.03**

Hamburg, **2009-12-21**

Germanischer Lloyd

i.v. Hanspeter Raschle *i.A. Hagen Markus*
Hanspeter Raschle Hagen Markus

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DRAWINGS

Basic drawings

FB-PN16&40-RH -110°C, FB-#150/300-RH-110°C, PQR-i-#150/300-RH, dated 13.09.2002

Overview basic drawings and TA Luft drawings

Valve Type	Standard Drawing	TA Luft Drawing	
FB ANSI	FB-#150/300-RH	05-02-020-0300-000_00	
		05-02-020-0300-050_00	
	FBC ANSI EB200	05-02-020-0300-100_00	
		05-02-020-0300-200_00	
		05-02-040-0300-000_00	
			05-02-040-0300-050_00
			05-02-040-0300-100_00
			05-02-040-0300-200_00
			05-02-200-0300-000_00
			05-02-200-0300-050_00
			05-02-200-0300-100_00
			05-02-200-0300-200_00
	FB DIN	FB-PN16&40-RH	05-02-020-0040-000_00
05-02-020-0040-050_00			
FBC DIN EB200		05-02-020-0040-100_00	
		05-02-020-0040-200_00	
		05-02-040-0040-000_00	
			05-02-040-0040-050_00
			05-02-040-0040-100_00
			05-02-040-0040-200_00
			05-02-200-0040-000_00
			05-02-200-0040-050_00
			05-02-200-0040-100_00
			05-02-200-0040-200_00
			05-02-020-0040-L00_00
		05-02-040-0040-L00_00	
		05-02-100-0040-L00_00	

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Overview basic drawings and TA Luft drawings

Valve Type	Standard Drawing	TA Luft Drawing
PQRi ANSI	PQRi#150/300-RH	11-02-025-0300-000_00
		11-02-025-0300-050_00
		11-02-025-0300-100_00
		11-02-025-0300-200_00
		11-02-050-0300-000_00
		11-02-050-0300-050_00
		11-02-050-0300-100_00
		11-02-050-0300-200_00
		11-02-300-0300-000_00
		11-02-300-0300-050_00
		11-02-300-0300-100_00
		11-02-300-0300-200_00

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