

FULL QUALITY ASSURANCE CERTIFICATE

Certificate No.:
112212-2012-CE-ITA-ACCREDIA

Initial date:
29 February, 2012

Valid:
18 May, 2018 – 17 May, 2021

This certificate consists of 4 pages

This is to certify that the quality system of

B.F.E. S.r.l.

Via Tonale, 70/A - 24061 Albano Sant'Alessandro (BG) - Italy

has been assessed and found to comply with respect to the conformity assessment procedure described in:

**ANNEX III MODULE H OF DIRECTIVE 2014/68/EU ON
PRESSURE EQUIPMENT**

This certificate is valid for the following scope:

Type of Pressure Equipment

Pressure Accessory

Product Name

Valves, spacer spools and strainers

Place and date:
Vimercate 14 May, 2018



SGQ N° 003 A IMA5 N° 009 P
SGA N° 003 D PRD N° 003 B
SGE N° 007 M PRS N° 004 C
SOR N° 004 F SSI N° 002 G

Membro di MLA EA per gli schemi di accreditamento
SGQ, SGA, PRD, PRS, IMA5, IAB e LAT; di MLA IAF
per gli schemi di accreditamento SGQ, SGA, SSI, FSM
e PRD e di MRA ILAC per gli schemi di accreditamento
LAB, MED, LAT e ISP.

For the notified body 0496:
**DNV GL Business Assurance Italia
S.r.l.**

Nicola Privato
Management Representative

Certificate No.: 112212-2012-CE-ITA-ACCREDIA
 Place and date: Vimercate 14 May, 2018
 Revision No: 05

Jurisdiction

Application of Directive 2014/68/EU and Decreto Legislativo n. 26 of 15 February 2016

Certificate history

Revision	Description	Issue date
00	Original certificate	29 February, 2012
01	Renewal	22 June 2012
02	Change of company name, 15 materials added to particular material appraisal table	20 February 2014
03	Renewal	26 May 2015
04	Reissued with reference to 2014/68/EU	23 October 2017
05	Renewal of certificate and scope extension for ball valves; up to 48"	14 May, 2018

Products covered by this certificate

Product name	Product description	Category
Valves, spacer spools and strainers	Gate, globe and check valves and combination valves, double block & bleed and strainers up to 48" Ball valves up to 48" Spacer spools up to 24"	Up to III

Sites covered by this certificate

Site name	Site Address	Audited by	Date	Report ref
B.F.E. S.r.l.	Via Tonale, 70/A - 24061 Albano Sant'Alessandro (BG) - Italy	Massimo Rota Gelpi Massimo Schiavone (Milan)	02/03/04 May, 2018	12101716-20180502-PED-RC-MRG

Particular material appraisal

The materials listed in Table 1 have been subject to particular material appraisal.

Table 1

Detail	Specification	Grade
Body, bonnet, nipples	ASTM A 105	
	ASTM A182	F1, F5, F5a, F9, F91, F11, F11 d2, F21, F22 cl.3, F44, F51, F304, F304L, F310MoLN, F304H, F316, F316L, F316H, F317, F317L, F321, F321H, F347, F347H, F55, F53, F60 (S32205, F22mod.60K
	ASTM A216	WCB (J03002)
	ASTM A350	LF2, LF3
	ASTM A494	N-12MV(1), N-7M, CW-2M, CW-12MW(1), CW-6MC, Cu5McuC(N08826)
	ASTM A694	F42(2)

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ASTM A757	D1Q1(3), D1Q2(3)
ASTM B148	UNS 95400(4)
ASTM B366	WP1925, WPHC4
ASTM B381	F2
ASTM B462	UNS N08020, N08028(modified)(5)
ASTM B564	UNS N04400, N06600, N06625, N08800, N08810, N08811, N08825
ASTM A29/API6A	AISI 4130 (G41300)
DIN 17103	St E355(6)(1.0566)
DIN 17243	C22.8(6)(1.0460), 13CrMo44(6)(1.7335), 10CrMo9.10(6)(1.7380)
DIN 17440	X6CrNiMoTi17.12.2(6), X6CrNiTi18.10(6), X6CrNiMoNb17.12.2(6)
DIN 17743	NiCu30Al(2.4375)(7)
AD-W13 Vd TUV 007/3	12CrMo19.5(1.7362)
Vd TUV 511/3	X10CrMoVnb9-1(1.4903)
ASTM A106	B
ASTM A312	TP304-L, TP304-H, TP316L, TP347-H, TP321-H
ASTM A333	6
ASTM A335	P11, P22, P5, P9, P91
EN 10088.3	1.4435
ASTM A565M	616 condition HT / UNS S42200
EN 10222-5	1.4301(X5CrNi18-10), 1.4462(X2CrNiMoN22-5-3), 1.4410(X2CrNiMoN25-7-4) (8)
EN 10222-2	1.5415(16Mo3), 1.7383(11CrMo9-10) (8)
WBL 377/3	1.6368(15NiCuMoNb5-6-4)
WB 552/3	1.4901(X10CrWMoVNb9-2)
ASTM B148	C95800
ASTM A217 / API 6A	A217 WC9 (J21890)
ASTM A217 / API 6A	A217 WC6 (J12072)
ASTM A352 / API 6A	A352 LCC (J02505)
ASTM A352 / API 6A	A352 LCB (J03003)
ASTM A494 / API 6A	A494 CY-40 (N06040)
ASTM A351 / API 6A	CN7M
ASTM A351 / API 6A	A351 CK-3MCuN (J93254)
ASTM A351 / API 6A	A351 CF-8M (J92900)
ASTM A351 / API 6A	A351 CF-8C (J92710)
ASTM A351 / API 6A	A351 CF8 (J92600)
ASTM A351 / API 6A	A351 CF-3M (J92800)
ASTM A217 / API 6A	A217 CA15 (J91150)
ASTM A995 / API 6A	A995 GR 6A (J93380)
ASTM A995 / API 6A	A995 GR 5A (J93404)
ASTM A995 / API 6A	A995 GR 4A (J92205)

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Bolting materials	ASTM A193	B7, B7M, B16, B8, B8 cl.2, B8A, B8C, B8M cl.2, B8MA, B8T
	ASTM A320	L7, L7M, B8 cl.2, B8M cl.2, B8A, B8MA
	ASTM A453	660A

Remarks

- (1) nominal design stress $R_m/4,5$ (R_m is defined as tensile strength);
- (2) supplementary requirement No. S5 is required. Min. 27 J at min design temperature;
- (3) requirement No. S22 is required. Min. 27 J at min design temperature;
- (4) the nominal design stress should not exceed the lowest of the following values: $ReH/3$ and $R_m/4,5$ (ReH is yield strength and R_m is tensile strength);
- (5) this material is not specified in ASTM B462. The chemical composition and mechanical properties are to be in accordance with material grade X1NiCrMoCu31-27-4 in accordance with EN10088-1;
- (6) the sampling is to be in accordance with EN10222-1;
- (7) the sampling is to be in accordance with ASTM B 564;
- (8) harmonized materials which are subject to PMA because used with limitations shown in specific PMA documents dated 2011-10-27 and 2011-12-15.

The materials are found to be acceptable under the following conditions

- mechanical and chemical requirements in the product standard must be complied with;
- the maximum stresses shall not exceed those allowed by the product standard;
- all testing specified in the product standard additional to the testing specified in the material standard must be carried out, with test results acceptable also to the product standard;
- documentation of materials is assumed to comply with PED annex 1 section 4.3;
- impact testing to be foreseen for ASTM steels that may have brittle behaviour.

Terms and conditions for the certificate

Valid terms and conditions are found in the DNV GL's PED Certification Rules.

END OF CERTIFICATE