

PRODUCTION QUALITY ASSURANCE CERTIFICATE

Certificate No.: 12403-2018-CE-USA-ACCREDIA

Initial date:
26 May, 2015

Valid:
14 May, 2018 – 13 May, 2021

This certificate consists of 2 pages

This is to certify that the quality system of

Flow Management Devices, LLC

5225 S 37th St. Ste 4 - 85040-9082 Phoenix, AZ - USA

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

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

This certificate is valid for the following scope:

Type of Pressure Equipment	Pressure Accessory
Product Name	Prover Models 001, 003, 007, 015, 025, C25, 035, A35, 045, 060, 090, 130, 200, 245

Place and date:
Vimercate 15 May, 2018



ISQI N° 003 A IRMS N° 009 P
 SGA N° 003 D IRD N° 003 B
 SIGI N° 007 M IRS N° 004 C
 SCR N° 004 F SSI N° 007 G

Membro di MLA EA per gli schemi di accreditamento
 SIGI, SGA, IRD, IRS, TSP, GHS, LAB e LAT di MLA IAF
 per gli schemi di accreditamento SIGI, SGA, SSI, ISO
 e IRD e di IRMS ILAC per gli schemi di accreditamento
 LAB, MEO, LAT e ISP

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

Nicola Privato
Management Representative

Certificate No.: 12403-2018-CE-USA-ACCREDIA
 Place and date: Vimercate 15 May, 2018
 Revision No: 00

Jurisdiction

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

Certificate history

Revision	Description	Issue date
00	Recertification – Replacing Cert 6139-2015-CE-USA-ACCREDIA and addition of USA Precision Machining and Joe's Quality Welding	15 May, 2018

Certificate reference (EU-Type Examination Certificate)

Certificate No.	Revision No.	Expiry date	Issued by Notified Body No.	Report No. (if NoBo 0496)
6212-2015-CE-HOU-ACCREDIA	00	13 May 2025	0496	Design Assessment Report dated 2015-04-11

Products covered by this certificate

Product name	Product description	Type of material	Applied product standard
FMD Flow Prover	Models 001, 003, 007, 015, 025, C25, 035, A35, 045, 060, 090, 130, 200, 245	Austenitic steels	ASME section VIII, Div. 1, 2007 ed.

Sites covered by this certificate

Site name	Site Address	Audited by	Date	Report ref
Flow Management Devices, LLC	5225 S 37th St Ste 4 - 85040-9082 Phoenix, AZ - USA	R Frueboes	3 - 4 April 2018	6 April 2018
USA Precision Machining	8028 Van Hut Ln., Houston, TX 77044	R Frueboes	2 April 2018	6 April 2018
Joe's Quality Welding	1207 Virginia St., South Houston, TX 77587	R Frueboes	2 April 2018	6 April 2018

Applications/limitations

- See Type Examination Certificate for pressure and temperature limitations.
- This Certificate only relates to directives described above. Other directives, covering other phenomena, and, also having requirements related to CE marking, might also apply.
- Equipment is intended for industrial applications.

Terms and conditions for the certificate

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

END OF CERTIFICATE



DNV BUSINESS ASSURANCE

EC TYPE - EXAMINATION CERTIFICATE

Certificate No. **6212-2015-CE-HOU-ACCREDIA**

This certificate consists of 4 pages.

This is to certify that the product(s)

Pressure Accessory

with name and/or type designation(s)

***Prover Models 001, 003, 007, 015, 025, C25, 035,
A35, 045, 060, 090, 130, 200, 245***

manufactured by

Flow Management Devices, LLC

5225 S 37th St Ste 4 - 85040-9082 Phoenix AZ - USA

has been assessed with respect to

*the conformity assessment procedure described in annex III (module B) of Directive 97/23/EC
on pressure equipment, as amended, and found to comply.*

Further details are given in the following pages.

Place and date

Vimercate (MB), 2015-05-26

for the Notified Body 0496

DNV GL Business Assurance Italia S.r.l.



This certificate is valid until

2025-05-13



SGQ N°003 A PRD N°003 B
SCA N°003 D SSI N°002 G
SCR N°004 F FSM N°001 I

Membro di MLA EA per gli schemi di accreditamento SGQ,
SGA, PRD, PRS, ISP e LAB, di MLA IAF per gli schemi di
accreditamento SGG, SGA, SSI, FSM e PRD
e di MRA ILAC per gli schemi di accreditamento LAB

Giovanni Cortesi
Technical Reviewer

Nicola Privato
Management Representative

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.



Certificate No. **6212-2015-CE-HOU-ACCREDIA**

Jurisdiction

Application of Pressure Equipment Directive 97/23/EC of the European Parliament and of the Council and Decreto Legislativo No. 93 of 25 February 2000.

Certificate history

Revision	Description	Issue date
00	Original certificate	2015-05-26

Products covered by this certificate

Product name	Product description	Product version	Category	Applied product standards
FMD PROVERS	FMD Flow Provers Class 150	FMD-001 thru FMD 007	III	ASME section VIII, Div. 1, 2007 ed.
FMD PROVERS	FMD Flow Provers Class 300	FMD-001	III	ASME section VIII, Div. 1, 2007 ed.
FMD PROVERS	FMD Flow Provers Class 150	FMD-015 thru FMD 245	IV	ASME section VIII, Div. 1, 2007 ed.
FMD PROVERS	FMD Flow Provers Class 300	FMD-003 thru FMD 245	IV	ASME section VIII, Div. 1, 2007 ed.
FMD PROVERS	FMD Flow Provers 600,900, 1500	FMD-001 thru FMD 245	IV	ASME section VIII, Div. 1, 2007 ed.

Design data

Models	Maximum allowable pressure (PS)		Minimum/maximum allowable temperature (TS)	Fluid group
	ANSI Class	MAWP		
All	1 (150#)	19.0 barg (275 psig)	-28.9°C / +37.8°C	1
All	2 (300#)	49.6 barg (720 psig)	-28.9°C / +37.8°C	1
All	3 (600#)	99 barg (1440 psig)	-28.9°C / +37.8°C	1
All	4 (900#)	148 barg (2160 psig)	-28.9°C / +37.8°C	1
FMD-003 thru FMD-090	5 (1500#)	248 barg (3600 psig)	-28.9°C / +37.8°C	1

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Certificate No. **6212-2015-CE-HOU-ACCREDIA**

Applications/limitations

Model Pressure Class and Volume

FMD Model	001	003	007	015	025	C25	035	A35	045	060	090	130	200	245
volume (L)	13	35	48	95	232	232	277	277	377	472	778	1366	2217	3268
volume (gal)	4	9	13	25	61	61	73	73	100	125	206	361	586	863
Pressure Class	1-4	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-4	1-4	1-4

Allowable Pressure at Elevated Temperature

Temperature (°C)		ANSI Flange Class									
		150#		300#		600#		900#		1500#	
Min	Max	psig	bar	psig	bar	psig	bar	psig	bar	psig	bar
-28.9	37.8	275	19	720	49.8	1440	99.3	2160	148.9	3600	248.2
-28.9	93.3	230	15.9	600	41.4	1200	82.7	1800	124.1	3000	206.8
-28.9	148.9	205	14.1	540	37.2	1080	74.5	1620	111.7	2700	186.2
-28.9	204.4	190	13.1	496	34.1	995	68.6	1490	102.7	2485	171.3

Tests carried out on prototype(s)

Product name	Tests
DNV GL Prototype Test Model: H44C25(LR)1A3S1CBWWES	99.3 bar g (2160 psig) / 4 hr - hold

Production site name	Address
Flow Management Devices, LLC	5225 S. 37th Street, Ste. 4, Phoenix, AZ 85040 - 9082 USA

Inspection of manufacturing and testing of prototype(s) has been carried out by DNV GL Business Assurance USA, Inc., ref. design assessment report dated 2015-04-11.

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Certificate No. **6212-2015-CE-HOU-ACCREDIA**

Documents reviewed

Drawing/Document No.	Revision	Date	Title	Status *)
000-101491-DOC	C	2015.03.01	Flow Prover Pressure Vessel Design Calculations	A
000-100664-DOC	H	2014.09.09	Hydrostatic Pressure Test Procedure	A
000-101791-DOC	-	-	Hydro Test Cert (Sample)	FI
000-109212-COM	A	2015.03.11	Nameplate Dwg	A
000-100300-DOC	C	-	PROVER_MANUAL	A
000-109661-DOC	A	2015.04.06	PED Technical File	A
000-101791-DOC	-	2015.03.11	DNV GL Prototype Test Model: H44C25(LR)1A3S1CBWWES	A

*) A = Approved, AC = Approved with comments, FI = For information

Terms and conditions

The certificate is subject to the following terms and conditions:

- in case of damages caused by defective products, Council Directive 85/374/EEC, as amended, will apply;
- the certificate is only valid for the product(s) listed above.

The following may render this certificate invalid:

- changes in the design or construction of the product(s);
- changes or amendments to the referenced directive(s);
- changes or amendments in the standard(s) which form the basis for documenting compliance with the essential requirements of the directive(s).

Conformity declaration and marking of product

This certificate does not give the manufacturer the right to CE mark and put on the market the product(s) listed on this certificate. Only after the product(s) have been found to comply with the requirements in a following Conformity Assessment Module C1, D, E or F, the manufacturer may draw up an EC declaration of conformity and legally affix the CE mark followed by the identification number of the Notified Body involved in these modules.

END OF CERTIFICATE

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.

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