

Reg. No.	PED 00053/H	Valid since	2021-12-21
First issuance	2016-01-07	Last modification	2023-01-26
Expiry	2025-01-06		

## Full Quality Assurance certificate (Module H)

We certify that the Quality Assurance System of the Organization:

### **EMIFLEX S.p.A.**

**Registered Headquarters**

Via Cuneo, 4/6 – 28014 Varedo (MB) – Italy

**Operative site**

Via Cuneo, 4/6 – 28014 Varedo (MB) – Italy

for design, manufacturing, final inspection and testing of the pressure equipment specified below, complies with the specified in Module H (Annex III) of Directive 2014/68/UE

<b>Pressure equipment</b> A. Metallic expansion joints B. Metallic flexible hoses	<b>Risk category</b> A. II / III B. II
<b>Assembly drawings</b> A. See Annex 1 B. See Annex 2	<b>Max temperature (°C)</b> A. 900 B. 550
<b>Pressure PS (bar)</b> A. 150 B. 50	<b>Min temperature (°C):</b> A. -196 B. -196
<b>Diameter DN</b> A. 3600 B. 50	<b>Type of fluid:</b> Group 1 (Gas)
<b>Reference standards:</b> A. ASME BPVC sez. VIII Div. 1 2021 / EJMA ed. 10-2015 + addendum 2016 / EN 13480-3:2021 / EN 13445-3:2021 / AD 2000 Merkblatt B 13:2012 B. EN 1736:2009 / EN 13445.3:2021	

This certificate is subject to compliance with the contractual requirements of Kiwa Cermet Italia and is valid only for pressure equipment listed in the Annex, which is an integral part of this Certificate, and manufactured according to the technical documentation archived in Kiwa Cermet Italia.

Every change introduced in the Quality System and/or in the product, without the preliminary approval by Kiwa Cermet Italia, terminates automatically the validity of this certificate. Every change shall be approved by Kiwa Cermet Italia.

The validity of this certificate is subject to the respect of the requirements set in Annex III of Directive 2014/68/EU and to the conduction of surveillance audits by Kiwa Cermet Italia. Any liability for damages caused by defects of the product is born solely by the manufacturer.

This certificate cannot be reproduced or duplicated if not in its integral form.

This document is formed by No. 1 page + 3 pages in Annex 1 + 1 page in Annex 2.

### **President**

*Giampiero Belcredi*

CERTIFICATE

**Kiwa Cermet Italia S.p.A.**  
Società con socio unico,  
soggetta all'attività di  
direzione e coordinamento di  
Kiwa Italia Holding S.r.l.

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**CERMET**



PRD N° 069B

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC  
Signatory of EA, IAF and ILAC Mutual Recognition Agreements



Organismo notificato n. 0476

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## Annex 1 to Full Quality Assurance certificate

PRINCIPAL TYPES OF METAL EXPANSION JOINTS	
TYPE	Axial Expansion Joints
	AM – AMC – AF – AFC – AFL – AFLC – AJM – AJMC – AJF – AJFC
	Angular Hinge Expansion Joints
	AGM – AGMC – AGF – AGFC
	Angular Gimbal Expansion Joints
	CDM – CDMC – CDF – CDFC
	Universal Expansion Joints
	UM – UMC – UF – UFC
	Lateral Expansion Joints
	LM – LF – LMC – LFC
	Lateral Spherical
	LS1M – LS1MC – LS1F – LS1FC – LSJ1M – LSJ1F – LSM – LSMC – LSF – LSFC
	Axial and Universal Pressure Balanced Expansion Joints
	PBM – PBUM – PBMC – PBUMC – PBF – PBUF – PBFC – PBUFC
	Elbow Pressure Balanced Expansion Joints
	PBE – PBEC – PBEF – PBEFC
Dismantling Joints	
GS – GSC – GSF – GSFC	

I Compensatori di Dilatazione sono prodotti con differenti attacchi (terminali a saldare, flange fisse o flange libere) e differenti accessori (convogliatore interno, tiranti, ecc.). Versioni speciali e personalizzate non indicate sopra sono incluse.

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DIAMETERS AND PRESSURES								
	DN	PS (bar)		DN	PS (bar)		DN	PS (bar)
Axial – Universal	32-3600	2.5	Angular Hinge – Angular Gimbal – Lateral	32-2000	2.5	Lateral Spherical – Pressure Balanced	32-2000	2.5
	32-3600	6		32-2000	6		32-2000	6
	32-3600	10		32-2000	10		32-2000	10
	32-2200	16		32-2000	16		32-2000	16
	32-2000	25		32-1000	25		32-1000	25
	32-1000	40		32-600	40		32-600	40
	32-600	64		32-500	64		32-500	64
	32-300	100		32-300	100		32-300	100
	32-300	150		32-300	150			



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<b>MATERIALS</b>	<b>Bellow and Inner Sleeves</b>
	ASTM A240: Tp. 304 / Tp. 304H / Tp. 309 / Tp. 310S / Tp. 316L / Tp. 316Ti / Tp. 321 / Tp. 321H / Tp. 904L / S32205 (Duplex 2205)
	ASTM B168: Alloy 600 (Inconel 600)
	ASTM B443: Alloy 625 (Inconel 625)
	ASTM B127: Alloy 400 (Monel 400)
	ASTM B409: Alloy 800 / 800 H (Incoloy 800)
	ASTM B424: Alloy 825
	ASTM B575: C276 / C22
	<b>Reinforcement Rings</b>
	ASTM A479: Tp. 304 ASTM A516: Gr. 70
	These parts can be also manufactured in the same materials of bellows
	<b>Welding Ends, Flanges and other Connectors</b>
	ASTM: A105 / A106 Gr. B / A333 Gr. 6 / A335 Gr. P11 e Gr. P22 / A350 LF2 / A387 Gr. 11 e Gr. 22 / A516 Gr. 60 e Gr. 70
	API 5L: X42 PLS1
	EN 10028-2: P355GH
	EN 10028-3: P275NH
	EN 10222-2: P245GH / P265GH / P295GH / 16Mo3
	EN 10222-4: P355NH / P355 NL1 / P355 NL2
	EN 10216-1: P265TR2
	ASTM B127: Alloy 400 (Monel 400)
	These parts can be also manufactured in the same materials of bellows
	<b>Tie bars, Tie rods, Nuts, Pins, Spherical Washers and Plates</b>
	EN 10025-2: S275JR / S355JR / E355JR
	ISO 683: C45E / 36 CrNiMo 4
	ASTM: A193 B7 / A194 2H / A582 Tp. 303
	AISI: 304 (A2) / 316 (A4)
	These parts can be also manufactured in the same materials of bellows and connectors

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## Annex 2 to Full Quality Assurance certificate

<b>PRINCIPAL TYPES OF METALLIC FLEXIBLE HOSES</b>		
<b>TYPE</b>	<b>Hoses</b>	<b>Anti-vibrations</b>
	TMF1	TMA1
<p>The Metallic Flexible Hoses are manufactured with different attaches (welding ends, male and / or female threaded fittings, fixed flanges or loose flanges). Special and customised versions not mentioned above, are included.</p>		

<b>MATERIALS</b>	<b>Flexible Hose</b> ASTM A240: Tp. 316L / Tp. 321 EN 10028-7: 1.4404 (AISI 316L) / 1.4541 (AISI 321)
	<b>Braid</b> EN 10088-3: 1.4301 (AISI 304) / 1.4404 (AISI 316)
	<b>Welding ends, flanges and other connectors</b> EN 10088-3: 1.4305 (AISI 303) ASTM: A105 / A106 Gr. B / A350 LF2 / A516 Gr. 60 and Gr.70 P245GH – P265TR2 – P265GH – P275NH – P295GH – P355GH – P355NH – P355NL1 – P355NL2 These parts can be also manufactured in the same materials of hose
	<b>Stop Braid Ring</b> EN 10217-7: 1.4301 (AISI 304) / 1.4404 (AISI 316) These parts can be also manufactured in the same materials of hose and connectors

### Diameter DN

32 – 40 – 50

