



CERTIFICATE NUMBER
EFFECTIVE DATE
EXPIRY DATE
ABS TECHNICAL OFFICE

26-0522972-PDA
05-May-2026
04-May-2031
Genoa Engineering Department

CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

RASTELLI RACCORDI COMMERCIALE S.R.L.

located at

VIA CIRCONVALLAZIONE, 26, , VILLANTERIO, PAVIA, Italy, 27019

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: Piping System, Mechanical Joint
Model: L-Series and S-Series
Endorsements:
Tier: 3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 04/May/2031 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

Simone Cavecchia, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

RASTELLI RACCORDI COMMERCIALE S.R.L.

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Email: rbordino@rastelliraccordi.itWeb: www.rastelliraccordi.it**Tier: 3 - Type Approved, unit certification not required**

Product: Piping System, Mechanical Joint**Model:** L-Series and S-Series**Endorsements:****Intended Service:**

Piping systems Class I, II and III in accordance with ABS Rules for Building and Classing Marine Vessels 4-6-2/Table 10.

Description:

Pipe Couplings, cutting ring type Light Series (L-Series) and Heavy Series (S-Series), available in carbon steel and stainless steel. For details see Attachment

Rating:

Sizes: from 6 mm up to 42 mm.

Pressure: PN160-PN315 (L-Series), PN315-PN630 (S-Series).

Temperature Range: -40 °C to +120°C (Carbon Steel), -55°C to +400°C (Stainless Steel).

For details, refer to attachment.

Service Restriction:

1. Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
2. When products used in piping systems operating at lower than -18 deg.C (0 deg.F) are to have adequate notch toughness properties in accordance with 4-6-2/3.1.7 of ABS Marine Vessels Rules. Evidence is to be submitted to our attending surveyors for verification.
3. Mechanical joints, which in the event of damage could cause fire or flooding, are not to be used in piping sections directly connected to the vessel's side below the bulkhead deck of passenger vessels and freeboard deck of cargo vessels or tanks containing flammable fluids as per 4-6-2/5.9.1(f) of MVR.
4. For sea water piping systems in which sea water may be retained within the piping system in a stagnant or low flow condition (i.e., less than 1 m/sec), there is a potential for chloride pitting and 304L stainless steels, 316L stainless steels with a molybdenum content of less than 2.5% are not to be used for the piping or piping components as per 4-6-2/3.1.2 of Marine Vessel Rules (MVR).

Comments:

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. Mounting of this product is to be carried by personnel trained and qualified by Rastelli Raccordi in accordance with their procedures and recommendations.
3. Documents regarding traceability and marking for each unit of this product shall be made available to ABS.
4. The assembly is to be to the satisfaction of the attending Surveyor.
5. In all cases, acceptance of the joint type is to be subject to approval for the intended application, and subject to conditions of the approval and applicable Rules.
6. The installation of mechanical joints is to be in accordance with the manufacturer's assembly instructions.

Notes/Drawing/Documentation:

Drawing No. 5086, TN81-L AVP, Revision: 0, Pages: 1

Drawing No. 5086-I, TN81-L INOX, Revision: 0, Pages: 1

Drawing No. 5087, TN81-S AVP, Revision: 0, Pages: 1

Drawing No. 5087-I, TN81-S INOX, Revision: 0, Pages: 1

Drawing No. 6006A, TN92GG-L AVP, Revision: 0, Pages: 1

Drawing No. 6006A-I, TN92GG-L INOX, Revision: 0, Pages: 1

Drawing No. 6006B, TN92GG-S AVP, Revision: 0, Pages: 1

Drawing No. 6006B-I, TN92GG-S INOX, Revision: 0, Pages: 1

Drawing No. 6119A, TD88-L AVP, Revision: 0, Pages: 1

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Drawing No. 6119A-I, TD88-L INOX, Revision: 0, Pages: 1
Drawing No. 6119B, TD88-S AVP, Revision: 0, Pages: 1
Drawing No. 6119B-I, TD88-S INOX, Revision: 0, Pages: 1
Drawing No. Doc10, Certificato ISO9001, Revision: 0, Pages: 1
Drawing No. Doc11, Accreditamento lab. MPA, Revision: 0, Pages: 1
Drawing No. Doc12, Certificati materiali, Revision: 0, Pages: 1
Drawing No. doc01, Richiesta assesment, Revision: 0, Pages: 1
Drawing No. doc02, Dich asbesto, Revision: 0, Pages: 1
Drawing No. doc03, Ordine omologa, Revision: 0, Pages: 1
Drawing No. doc04, Catalogo 2B5, Revision: 0, Pages: 1
Drawing No. doc05-01, test report fuoco-1, at RINA Lab dated 12 Feb 2014
Drawing No. doc05-02, test report fuoco-2, at RINA Lab dated 12 Feb 2014
Drawing No. doc05-03, test report fuoco-3, at RINA Lab dated 12 Feb 2014
Drawing No. doc05-04, test report fuoco-4, at RINA Lab dated 12 Feb 2014
Drawing No. doc05-05, test report fuoco-5, at RINA Lab dated 12 Feb 2014
Drawing No. doc05-06, test report fuoco-6, at RINA Lab dated 12 Feb 2014
Drawing No. doc05-07, test report fuoco-7, at RINA Lab dated 12 Feb 2014
Drawing No. doc05-08, test report fuoco-8, at RINA Lab dated 12 Feb 2014
Drawing No. doc06, test report scoppio, at Rastelli Raccordi dated 20 Sept 2013
Drawing No. doc07, test report mont ripet e tenuta press at Rastelli Raccordi dated 22 Nov 2007
Drawing No. doc08, test report tenuta aria at ISTITUTO GIORDANO dated 19 May 2014
Drawing No. doc09-01, Test report vuoto-impulsi-vibrazione, at MPA NRW dated 07 Apr 2008

Terms of Validity:

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STANDARDS**ABS Rules:**

ABS Rules for Building and Classing Marine Vessels (2026) 1-1-4/7.7, 1-1-A3 & 1-1-A4, 4-6-2/5.9, 4-6-2/Table 10, Table 12

ABS Rules for Building and Classing Mobile Offshore Units (2025): 1B-1-4/9.7, 1B-1-A2, 1B-1-A3, 6-1-6/5.1.6

National:

NA

International:

NA

Government:

NA

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EUMED:

NA

OTHERS:

NA

RASTELLI RACCORDI COMMERCIALE S.R.L.
VIA CIRCONVALLAZIONE,26
27019 VILLANTERIO (PAVIA)

Attachment to PDA Certificate No. 26-0522972-PDA issued on 05-May-2026 expiring 04-May-2031

Series	Ø Pipe	Ø gas thread	Ø metric thread	PN
L	6	1/8"	M 10 x 1	315
	8	1/4"	M 12 x 1,5	
	10	1/4"	M 14 x 1,5	
	12	3/8"	M 16 x 1,5	
	15	1/2"	M 18 x 1,5	
	18	1/2"	M 22 x 1,5	
	22	3/4"	M 26 x 1,5	160
	28	1"	M 33 x 2	
	35	1" 1/4	M 42 x 2	
	42	1" 1/2	M 48 x 2	
S	6	1/4"	M 12 x 1,5	630
	8	1/4"	M 14 x 1,5	
	10	3/8"	M 16 x 1,5	
	12	3/8"	M 18 x 1,5	
	14	1/2"	M 20 x 1,5	
	16	1/2"	M 22 x 1,5	
	20	3/4"	M 27 x 2	400
	25	1"	M 42 x 2	
	30	1" 1/4	M 42 x 2	
	38	1" 1/2	M 48 x 2	315

Part	Carbon Steel Coupling	Stainless Steel Coupling
Body	9SMnPb 36, WNo. 1.0737 or UNI 4838	AISI 316Ti / WNo. 1.4571
Nut	Ø6L - 22L : QSt 36.3, WNo. 1.0214	AISI 316Ti / WNo. 1.4571
	Ø25L - 42L : C35Pb, WNo. 1.0502	
Ring	Ø6LS a 10LS: 9SMnPb36 – UNI4838 Ø12LS a 42L: 9SMn28 – W.Nr.1.0715	AISI 316L / WNo. 1.4435
Temperature	-18 °C to 120 °C	-55 °C to 400 °C

For couplings made of stainless steel at elevated temperatures, the maximum working pressure has to be reduced with the following factors:

Temperature	20	50	100	150	200	250	300	350	400
Factor	1	0.95	0.89	0.84	0.8	0.75	0.7	0.69	0.66

In addition the limitations given by the coupling materials, the maximum working temperatures for couplings with o-rings of the materials:

NBR Nitrile rubber -30 °C to 90 °C
FPM Fluorinated rubber -25 °C to 170 °C