

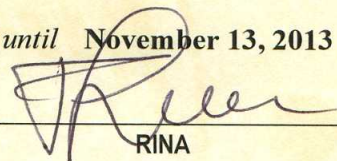
TYPE APPROVAL CERTIFICATE
No. **MAC314508CS/004**



This is to certify that the product identified below is in compliance with the regulations herewith specified.

<i>Description</i>	Pipes and couplings
<i>Type</i>	CUNIPRESS System
<i>Applicant</i>	CHIBRO S.P.A. VIA ROSCIO, 19 22100 COMO (CO) ITALY
<i>Manufacturer</i>	CHIBRO S.P.A.
<i>Place of manufacture</i>	VIA CARONTI, 8 22046 MASLIANICO (CO) ITALY
<i>Reference standards</i>	Part C, Chapter 1, Section 10 of RINA Rules

Issued in **Genoa** on **December 3, 2008**. This Certificate is valid until **November 13, 2013**


RINA
Francesco Sciacca



This Certificate consists of this page and 1 enclosure.
This Certificate cancels and replaces the previous N° MAC314508CS/003 dated 14.11.2008.

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CUNIPRESS System

Reference documents

CHIBRO catalogue CH4200 Novembre 2008.

Material and components

Pipe and fittings: 90/10 Copper-Nickel alloy according to UNS C 70600 USA Standard.

O-Ring seals: NBR synthetic rubber.

Technical characteristics

Maximum working pressure: P = 13 bar

Maximum working temperature: T = 95 °C

Pipe thickness according to following table:

Outside Diameter (mm)	Pipe Thickness (mm)
15	1.0
18	1.0
22	1.0
28	1.5
35	1.5
42	1.5
54	1.5
76.1	2.0
88.9	2.0
108	2.5

Tests carried out

- Burst tests carried out on 12.02.1998 as per test report n° 98 DG TO 91.
- Vibration tests carried out on 6.03.2008 as per test report n° 014/SP/08/pd.
- Pull-out tests carried out on 27.02.2008 as per test report n° MO799/1 Rev. A.
- Flame resistance tests carried out on 13.10.2008 as per RINA tests reports nos from 2008CS013623/1 to 2008CS013623/4.
- Vacuum tests carried out on 12.02.1998 as per test report n° 98 DG TO 91.



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CUNIPRESS System

Fields of application

Application of the mechanical joints and their acceptable use for each service are indicated in Table 16, Part C, Chapter 1, Section 10 of RINA Rules. Services where fire resistant type is required are accepted.

Application of the mechanical joints depending upon the class of piping is indicated in Table 17 of a.m. Rules. Particularly press type compression couplings are not allowed on piping systems of I and II Class.

The mechanical joints are not to be used in those systems where pressure pulsation other than water hammer is expected.

Acceptance conditions

The acceptance of the a.m. products on board ships and other units classed with RINA is subject to the satisfactory outcome of testing as per RINA Rules.

The installation on board of mechanical joints is to be made in accordance with the Manufacturer's assembly instructions. Where special tools and gauges are required for installation of the joints, these are to be supplied by the Manufacturer.

The gasket material (O-ring) is to be suitable to the media conveyed.

Remarks

This Type Approval Certificate cancels and replaces the previous N° MAC314508CS/003 dated 14.11.2008.

Genoa December 3, 2008

