



**TYPE APPROVAL CERTIFICATE**  
No. MAC050717CS/002

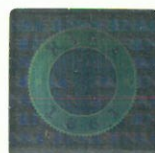
**This is to certify** that the product identified below is in compliance with the regulations herewith specified.

<i>Description</i>	<b>Flanges for piping</b>
<i>Type</i>	<b>SAE FLANGE SERIES 6000 psi FROM ½" CFS401 TO 2" CFS406 FROM ½" C401..FF TO 2" C406..FF</b>
<i>Applicant</i>	<b>OFFICINE MECCANICHE CIOCCA S.P.A. VIA TREVIGLIO, 44 24053 BRIGNANO DI GERA D'ADDA (BG) ITALY</b>
<i>Manufacturer</i>	<b>OFFICINE MECCANICHE CIOCCA S.P.A.</b>
<i>Place of manufacture</i>	<b>VIA TREVIGLIO, 44 24053 BRIGNANO DI GERA D'ADDA (BG) ITALY</b>
<i>Reference standards</i>	<b>Part C, Chapter 1, Section 10 of RINA Rules</b>
<i>Reference documents</i>	<b>RINA TYPE APPROVAL SYSTEM</b>

Issued in **Genoa** on **March 20, 2017**. This Certificate is valid until **March 19, 2022**

RINA Services S.p.A.  
**Francesco Sciacca**

This certificate consists of this page and 1 enclosure



**TYPE APPROVAL CERTIFICATE**  
No. **MAC050717CS/002**  
Enclosure - Page 1 of 2  
**SAE FLANGE SERIES 6000 psi**

**Reference documents**

CIOCCA drawings Nos. CFS401 to CFS406 approved with Nos. from 4367643 to 4367648 on 12/05/2000, valid both for the flanges type CFS.. (with "O" ring groove and through holes) and for the counterflange C..FF (without "O" ring groove and with thread holes).

**Materials**

Steel ASTM A105 / ST52.3  
"O" Ring : Rubber NBR 90 shore  
Bolts Class 12.9 (12K)

**Field of application**

Hydraulic Systems

Maximum Allowable Working Pressure

Size	Drawing	"O" Ring	Bolts	Max. Working Press. (bar)
1/2"	CFS401 C401..FF	18,64x3,53 N.A.	M8 x 30	420
3/4"	CFS402 C402..FF	24,99x3,53 N.A.	M10 x 35	420
1"	CFS403 C403..FF	32,93x3,53 N.A.	M12 x 45	420
1 1/4"	CFS404 C404..FF	37,69x3,53 N.A.	M14 x 50	420
1 1/2"	CFS405 C405..FF	47,22x3,53 N.A.	M16 x 55	420
2"	CFS406 C406..FF	56,74x3,53 N.A.	M20 x 70	420

**Acceptance conditions**

The connection of the flanges to the pipes is to be carried out according to RINA Rules Pt. C, Ch 1, Sec.10 Figure 1 and Table 14 with regard to piping service and to class of piping, using welding procedures approved by RINA and welders authorized by RINA.

The flanges are to be installed in accordance with Manufacturer's requirements.

The acceptance of flanges on board ships and other units classed with RINA is subject to satisfactory outcome of testing as per RINA Rules

**Tests carried out**

Bursting test pressure at 4 times the M.A.W.P., as per RINA Tests Report Prot. No. 00/CS/1235/TO dated 07 November 2001.



**TYPE APPROVAL CERTIFICATE**

**No. MAC050717CS/002**

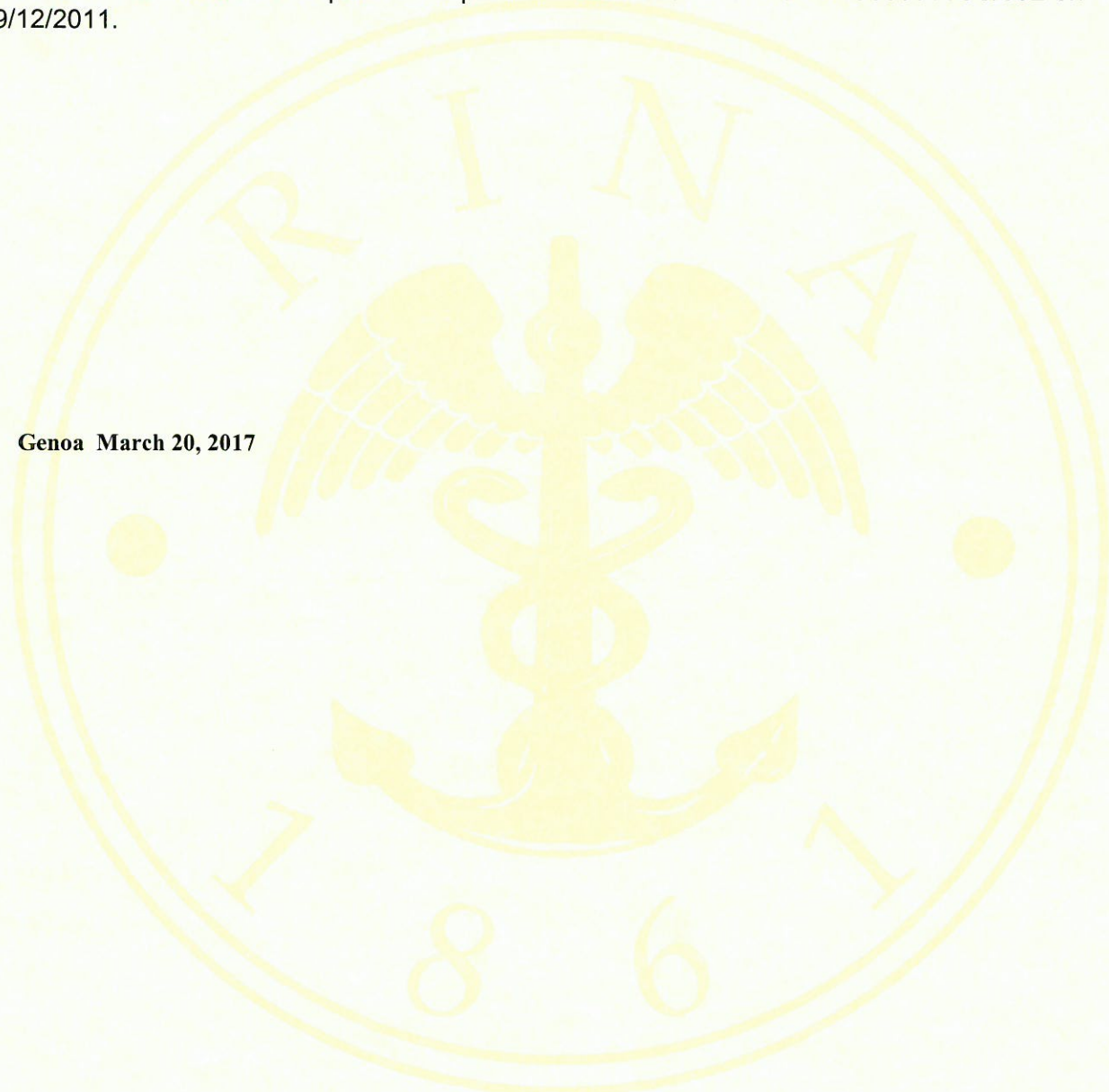
**Enclosure - Page 2 of 2**

**SAE FLANGE SERIES 6000 psi**

**Remarks**

This Certificate annuls and replaces the previous one issued with No. MAC388611CS/002 on 19/12/2011.

**Genoa March 20, 2017**



RINA Services S.p.A.  
Via Corsica, 12 - 16128 Genova  
Tel +39 010 53851  
Fax +39 010 5351000

