



TYPE APPROVAL CERTIFICATE
No. **MAC407422CS**

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

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

Issued in **Genoa** on **October 11, 2022**. *This Certificate is valid until* **October 11, 2027**

RINA Services S.p.A.
Rosario Pitruzzo

This certificate consists of this page and 1 enclosure

This certificate annuls and replaces the certificate MAC050717CS/002 issued on 20/03/2017

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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.

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SAE FLANGE SERIES 6000 psi

Remarks

This Certificate annuls and replaces the previous one issued with No. MAC050717CS/002 on 20/03/2017.

Genoa October 11, 2022