

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the LR Type Approval System.

This certificate is issued to:

PRODUCER	Taiwan SRP Heat Exchanger Inc. No.7, Floor 9-3, Dunhua South Road, Section 1 Taipei City Taiwan
PLACE OF PRODUCTION	No.52-28, Shin Su Road, Shin Chuan Dist. New Taipei City Taiwan
DESCRIPTION	Plate Heat Exchanger
TYPE	GC12、GC30、GL13、GC16、GC26、GC26T、GC51、GC51T、 GC60、GC60T、GX26、GX42、GX51、GX64、GX91、GX118、 GX60、GX100、GX140、GX180、GX85、GL85、GX145、GL145、 GX205、GL205
APPLICATION	As heat exchanger for sea water, fresh water, Lubricating Oil, Brine
SPECIFIED STANDARD	LR Rules and Regulations for the Classification of Ships, July 2013 CB/T 1036-1997 Marine plate heat exchanger GB 16409-1996 Plate heat exchanger
RATINGS	Design Pressure (Bar): 6,10 Design Temp. (°C): 110 Plate material: ASTM B265: TI, TI-Pd ASTM A240: 304, 316, 316L, 254SMo, 654SMo Plate thickness (mm): 0.5, 0.6 Seal materials: NBR/HNBR, EPDM, VITON/FPM Cover Plate materials: Q235B, SS400

Certificate No.	14/80036
Issue Date	28 August 2014
Expiry Date	27 August 2019
Sheet	1 of 3



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Shanghai Technical Support Office
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Type	Heat transfer area Per plate (m ²)	Max. heat exchange area (m ²)	Draw Depth (mm)
GC12	0.032	3.2	2.5
GC30	0.085	17.1	2.5
GL13	0.12	19	2.9
GC16	0.135	27.3	1.85
GX26	0.27	88.8	3.3
GC26/ GC26T	0.26	77	4.0
GX42	0.44	144.8	3.3
GX51/GC51T	0.55	181	3.3
GX64	0.64	214.4	2.9
GX91	0.91	248.4	2.9
GX118	1.18	253	2.9
GX60	0.56	297.4	3.3
GC60/GC60T	0.55	253	4.4
GX100	1.01	458.5	3.3
GX140	1.46	538.7	3.3
GX180	1.91	1098	3.3
GX85/GL85	0.91	439.5	3.3
GX145/GL145	1.53	610.5	3.3
GX205/GL205	2.14	1183	3.3

OTHER CONDITIONS

1. The product type selection including capacity, plate material, seal materials are to be suitable for fluids inside and installation is to follow manufacturer's instructions.
2. All heat exchangers necessary for the operation of main propulsion and essential machinery are to be surveyed at the manufacturer's works. Part 5, Chapter 1, section 1.1.1 of Rules refers.
3. The test item No.6 (Table 6, CB/T1036-1997) for Heat transfer performance and Fluid flow resistance are not carried out in this type approval.

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 Sheet 2 of 3



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"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register of any modification or changes to the equipment in order to obtain a valid certificate."

The Design Appraisal Document No. STS/TA/144530 Issue number 0 dated 28 August 2014 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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Sheet	3 of 3



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