

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	Sinpro (Dezhou) Industries Co., Ltd.	
PLACE OF PRODUCTION	No. 1, Industrial Park Road Ningjin Town 253400 Dezhou City Shandong Province People's Republic of China	
DESCRIPTION	Butterfly Valve	
TYPE	"AFA" Wafer type "AFA" Lug type	
APPLICATION	Marine, Offshore applications subject to the valves complying with LR Rules and Regulations for the particular services.	
SPECIFIED STANDARD	LR Rules and Regulations for the Classification of Ships, July 2013 API 609 (October 2009) BS EN12266-1: 2003 ISO 5208: 2008	
RATINGS	Nominal Size (mm):	DN25-DN600
	Maximum Working Pressure (Bar):	10 (DN25-DN600), 16 (DN25-DN300)
	Maximum Working Temperature (°C):	EPDM: 110; NBR: 80
	Materials for Valve Body:	Grey Cast Iron EN-GJL-250(BS EN1561) or equal Spheroidal Graphite Cast Iron EN-GJS-400 (BS EN1563) or equal
	Materials for Liner:	EPDM, NBR
Certificate No.	14/80038	
Issue Date	29 August 2014	
Expiry Date	28 August 2019	
Sheet	1 of 2	



Max Wu
Shanghai Technical Support Office
Lloyd's Register Classification Society (China) Co., Ltd.

Lloyd's Register Classification Society (China) Co., Ltd
19th Floor, Ocean Towers, 550 Yan An Dong Road, Shanghai 200001
A member of Lloyd's Register Group Limited.

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

OTHER CONDITIONS

For application on a LR classed vessel, the following conditions to be complied with:-

1. Materials for ferrous castings of Class I, II piping systems are to be produced at a works approved by LR and are in general to be tested in accordance with the Rules for Materials.
2. Valves are to be used within their specified pressure and temperature rating for all normal operating conditions, and are to be suitable for the intended purpose.
3. The materials used for valves are to be suitable for the medium and the service for which the piping is intended on-board. The application limitation and scope to cast iron valves are to be in accordance with the requirements of Rules. Part 5, Chapter 12, Section 4 refers.
4. The valves are not to be used in spaces where leakage or failure caused by fire could result in fire spread, flooding or the loss of an essential service.
5. Each valve is to be tested at the manufacturer's production facility to a hydrostatic pressure not less than 1.5 times the rated pressure of the valve.

"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/141670/A Issue number 0 dated 29 August 2014 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Certificate No.	14/80038
Issue Date	29 August 2014
Expiry Date	28 August 2019
Sheet	2 of 2



Max Wu
Shanghai Technical Support Office
Lloyd's Register Classification Society (China) Co., Ltd.

*Lloyd's Register Classification Society (China)Co., Ltd
19th Floor, Ocean Towers, 550 Yan An Dong Road, Shanghai 200001
A member of Lloyd's Register Group Limited.*

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.