



Fusion Welded Pressure Vessels Class 1

Manufacturer	Kang Rim Heavy Industries Co., Ltd
Address	76, Yeondeok-ro Changwon, Gyeongnam, Republic of Korea
Type	Fusion Welded Pressure Vessels Class 1

This approval is subject to compliance with the Lloyd's Register Rules for the Classification of Ships. The full details of the processes, products and grades to which this approval applies are given on subsequent pages of this certificate.

This certificate is issued to the named manufacturer, and is valid until the expiry date specified. Lloyd's Register is to be notified of any change that may affect the validity of this certificate, and reserves the right to cancel or withdraw this certificate.



71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Sufair Shaikh

Welding Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register group

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.

Fusion Welded Pressure Vessels Class 1

Fusion Welded Pressure Vessels Class 1	Group A	Grades	Maximum Thickness	Units
As Welded or PWHT	-	SAW	48.00	mm
As Welded or PWHT	-	SMAW	28.00	mm
As Welded	-	GTAW	10.00	mm
As Welded or PWHT	-	FCAW	28.00	mm
PWHT	-	SAW	99.00	mm
Fusion Welded Pressure Vessels Class 1	Group A	Grades	Test Temperature	Units
As Welded or PWHT	-	SAW	20.00	Degree Celsius
As Welded	-	GTAW	20.00	Degree Celsius
Fusion Welded Pressure Vessels Class 1	Group B	Grades	Maximum Thickness	Units
As Welded	-	FCAW	10.00	mm
As Welded	-	SAW	65.00	mm
As Welded	-	GTAW	10.00	mm
Fusion Welded Pressure Vessels Class 1	Group B	Grades	Test Temperature	Units
As Welded	-	SAW	-196.00	Degree Celsius
As Welded	-	FCAW	-196.00	Degree Celsius
As Welded	-	GTAW	-196.00	Degree Celsius

Limitations

For Group A materials, FCAW process also approved for the welding of the root run on a maximum base material thickness of 99 mm.
 For Group B materials, GTAW process also approved for the welding of root run



71 Fenchurch Street, London, EC3M 4BS, United Kingdom

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.



Fusion Welded Pressure Vessels Class 1

only on a base material thickness exceeding 10 mm but not over 65 mm.



71 Fenchurch Street, London, EC3M 4BS, United Kingdom

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.