



NIPPON KAIJI KYOKAI

Approval No. NKY-3464
Certificate No. TA19403E

Certificate OF *TYPE APPROVAL*

Article : Welding Consumables for High Tensile Steels for Hull
Brand : MAGMAWELD ESB 48
Applicant : OERLIKON KAYNAK ELEKTRODLARI VE SANAYI A. S.
Yunusemre, Manisa, Turkey
Manufacturer : OERLIKON KAYNAK ELEKTRODLARI VE SANAYI A. S.
Yunusemre, Manisa, Turkey
Grade : KMW53H10
Welding Process : Manual Welding
Welding Positions and Max. Diameter of Electrode : See Table 1
Current : DCEP
Shielding Gas : Not Applicable

Table 1 Welding Positions and Max. Diameter of Electrode

Butt Weld		Fillet Weld	
Flat:	5.0mm	Flat:	5.0mm
Horizontal:	5.0mm	Horizontal Vertical:	5.0mm
Overhead:	5.0mm	Horizontal:	5.0mm
Vertical Upward:	5.0mm	Horizontal Overhead:	5.0mm
Vertical Downward:	5.0mm	Overhead:	5.0mm
		Vertical Upward:	5.0mm
		Vertical Downward:	5.0mm

THIS IS TO CERTIFY that the above mentioned welding consumable has been approved by the NIPPON KAIJI KYOKAI in accordance with the requirements of the Society's Rules.

This Certificate will remain in force until 27 March 2020.

Issued at Tokyo on 28 March 2019.

H. Kobayashi

General Manager

Material and Equipment Department



Note : The validity of this certificate may be renewed by endorsement on the attached sheet upon completion of the annual inspections.



NIPPON KAIJI KYOKAI

Approval No. NKY-3465
Certificate No. TA19404E

Certificate OF *TYPE APPROVAL*

Article : Welding Consumables for High Tensile Steels for Hull
Brand : MAGMAWELD FCW 11
Applicant : OERLIKON KAYNAK ELEKTRODLARI VE SANAYI A. S.
Yunusemre, Manisa, Turkey
Manufacturer : OERLIKON KAYNAK ELEKTRODLARI VE SANAYI A. S.
Yunusemre, Manisa, Turkey
Grade : KSW53G(C)H10
Welding Process : Semi-Automatic Welding (MAG Welding)
Welding Positions and Max. Diameter of Wire : See Table 1
Current : DCEP
Shielding Gas : CO₂

Table 1 Welding Positions and Max. Diameter of Wire

Butt Weld		Fillet Weld	
Flat:	1.6mm	Flat:	1.6mm
Horizontal:	1.6mm	Horizontal Vertical:	1.6mm
Overhead:	1.6mm	Horizontal:	1.6mm
Vertical Upward:	1.6mm	Horizontal Overhead:	1.6mm
Vertical Downward:	1.6mm	Overhead:	1.6mm
		Vertical Upward:	1.6mm
		Vertical Downward:	1.6mm

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General Manager

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NIPPON KAIJI KYOKAI

Approval No. NKY-3466
Certificate No. TA19405E

Certificate OF TYPE APPROVAL

Article : Welding Consumables for High Tensile Steels for Hull
Brand : MAGMAWELD SF 104 / SW 702
[Flux / Wire]
Applicant : OERLIKON KAYNAK ELEKTRODLARI VE SANAYI A. S.
Yunusemre, Manisa, Turkey
Manufacturer : OERLIKON KAYNAK ELEKTRODLARI VE SANAYI A. S.
Yunusemre, Manisa, Turkey
Grade : KAW53M
Welding Process : Submerged Arc Welding
Welding Positions and Max. Diameter of Wire : See Table 1
Current : DCEP
Shielding Gas : Not Applicable

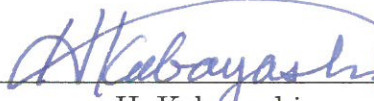
Table 1 Welding Positions and Max. Diameter of Wire


Butt Weld		Fillet Weld	
Flat:	4.0mm	Flat:	4.0mm
Horizontal:	Not Applicable	Horizontal Vertical:	Not Applicable
Overhead:	Not Applicable	Horizontal:	Not Applicable
Vertical Upward:	Not Applicable	Horizontal Overhead:	Not Applicable
Vertical Downward:	Not Applicable	Overhead:	Not Applicable
		Vertical Upward:	Not Applicable
		Vertical Downward:	Not Applicable

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