



**BTMboru**  
PIPE & FITTINGS

BV Rules on Material and Welding for the  
Classification of Marine Units,  
NR216, Ch 5, Sec 4,  
Approval of Welding Procedures

# WPS

WPS No: 1

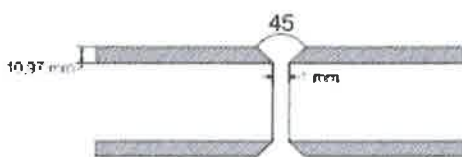
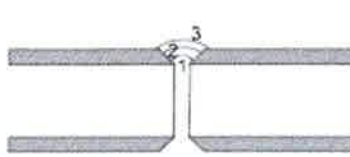
Date of Issue: 31.12.2018

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## WELDING PROCEDURE SPECIFICATION

WPQR No	: 1	Parent Material Grade	: GR-B	Part 1	Part 2
Method of preparation	: CNC	Range of Material thickness	: 3-21,94 mm	GR-B	GR-B
Cleaning	: Grinding, Brushing	Range of Outside diameter	: >=84,15 mm		
Joint Type	: Butt Joint	Range of Welding Position	: HL045		
Parent Material Spec.	: Carbon Steel				
One side welding					

### Weld Preparation Details

Joint design	Welding sequences
	

### Welding Details

	1	2	3				
Run number	1	2	3				
Welding process	TIG (141)	TIG (141)	FCAW (136)				
Autom. Welding	.nr. of heads						
	.weaving						
Filler metal: wire (W) or electrode (E)	W	W	W				
.Designation	GEKA SG2	GEKA SG2	HYUNDAI				
.Grade	4YM	4YM	3YMHH				
.Description	AWS A5.18	AWS A5.18	AWS A5.36				
.Diameter	1,6 mm	2,4 mm	E71T-1C				
Shielding: Flux (F) or gas (G)	G	G	G				
.Power flux	.description						
	.type and trade name						
.Gas flux	.description	%100 Argon	%100 Argon	%100 CO2			
	.type and trade name	Linde	Linde	Linde			
.Backing	.flow rate (l/mn)						
.Shielding	.flow rate (l/mn)						
.Plasma							
Tungsten electrode: type/size							
Type of current	DC	DC	DC				
Electrode or wire polarity	(-)	(-)	(+)				
Current (A)	126	160	146				
Voltage (V)	19	19	21				
Travel speed S (cm/min)	18	9	10				
Wire feed speed (cm/min)							
Heat input (J/cm) = [ k x V x A x 60 ] / S	4788	12160	11038				
Interpass temperature in °C (min/max)	Min 150°C – Max. 250 °C						
Welding equipment / Trade mark-type	KOLARC / T 270 DC		M 500 DC				

Pre heat :YES  
Post heating :NO  
Post weld heat treatment :NO

Temperature°C 20-40 °C  
Temperature°C.....  
Temperature°C.....

Holding Time.....  
Holding Time.....  
Holding Time.....

Prepared by Firm Representative

Endorsed by BV Surveyor

Name: ÖMER DEMİR

Name: HAKAN TIRYAKI

Signature:

Signature:

Stamp

**BTM BORU**  
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