

WELDER'S QUALIFICATION TEST CERTIFICATE
according to NEN-EN-ISO 9606-1: 2017

Certificate No.: A0565824-88
 Rev.: 0
 Ref.: WPS-DNVGL-2018-17

Designation(s) 138 T BW FM1 M t=25 (s1=12.50) D 141.3 H-L045 ss, nb
 136 T BW FM1 P t=25 (s2=12.50) D 141.3 H-L045 ss, mb

Approval body Det Norske Veritas B.V., the Netherlands

Welder's name Grzegorz Idasiak
 Identification / Method of identification Identiteitsbewijs /
 Date and place of birth 1979-01-20 / Polen
 Employer W.P.S. Welding Services
 WPS - Reference FCAW 138-136-X65-6G-02
 Job knowledge Not tested

Welding data	Test Piece	Range of qualification NEN-EN-ISO 9606-1:2017
Welding process(es)	138 136	135, 138 136
Transfer mode	Short circuit arc N.A.	Short circuiting arc , Globular arc, Spray arc, Pulse arc N.A.
Current and polarity	DC pos DC pos	N.A. N.A.
Product type	T	P, T
Type of weld	BW	BW, branch joints with an angle >=60°
Material group(s)	1.3 (API 5L X65)	N.A.
Filler metal group and type	FM1, M, ISO 17632-A T 46 6 1,5Ni M M 1 H5 FM1, P, ISO 17632-A T46 6 1,5Ni P M 1 H5	FM1, FM2, S, M FM1, FM2, R, P, V, W, Y, Z
Shielding gas	M21 M21	N.A. N.A.
Auxiliaries (e.g. backing gas)	N.A. N.A.	N.A. N.A.
Material thickness (mm)	t=25.00 mm	N.A.
Deposite weld thickness (mm)	S1:12.50mm (*) S2:12.50mm (*)	S1:>= 3.00 mm - S2:>= 3.00 mm
Outside pipe diameter (mm)	141.3 mm	D >= 70.65 mm
Welding position	H-L045	PA, PB, PC, PD, PE, PF, PH
Weld details	ss, nb ss, mb	ss nb - ss mb - bs - ss gb - ss fb ss mb - bs
Suppl. FW Test piece (5.4e)	Yes Yes	FW sl, ml >= 3.00 mm FW sl, ml >= 3.00 mm

*) 3 or more layers.

Type of qualification tests	Performed and accepted	Not tested	
Visual testing	Yes	-----	Accept. NEN EN ISO 9606-1 clause 7 40320051
Radiographic testing	Yes	-----	
Ultrasonic testing	-----	Not tested	
Liquid Penetrant testing	-----	Not tested	
Magnetic testing	-----	Not tested	
Bend test	Yes	-----	WPS-B-60/18
Macroscopic examination	-----	Not tested	
Fracture test	Yes	-----	Acceptable, performed on site
Hardness examination	-----	Not tested	
Impact testing	-----	Not tested	
Tensile test	-----	Not tested	

Place of welding Rotterdam
 Date of welding 2018-11-16

Valid till 2020-11-16

Issue date 2018-11-21

Issue place Barendrecht

Surveyor Leo Knops

Verified by Marc van Holstein

Signature welder



Signature employer:

See reverse side for prolongation by employer every 6 months, and examiner/test body's prolongation every 2 years. Additional information may also be stated in the column 'supplementary remarks'.