



Welding Procedure Qualification Certificate (EN ISO 15614-1) Energy - Downstream, Power and Manufacturing

Manufacturer's Welding Procedure Qualification Record No.: **VP15E** Examining body Reference No: **/**

Manufacturer: **Ruhfus Systemhydraulik GmbH**
Address: **Neuss / Germany**
Welders Name: **Jacek Nakonieczny**

Code/Testing Standard: **EN ISO 15614, Lloyd's Register Rules and Regulations**
Date of Welding: **22 May 2015**

Range of Qualification

Welding Process(es): **141 (TIG)**
Type of joint and weld: **V-Joint 40°-60°**
Parent material group(s) and sub-: **8.1 / 8.1**
Parent Material Thickness (mm): **2,85**
Weld Metal Thickness (mm): **2,85**
Throat Thickness (mm): **2,0-3,5**
Single Run/Multi Run: **Multi Run**
Outside Pipe Diameter (mm): **25,0**
Filler Material Designation: **Thermanit GE-316 L**
Filler Material Make: **Böhler**
Filler Material Size: **Ø 2,0 mm**
Designation of Shielding Gas/Flux: **EN ISO 14175-I1-Ar**
Designation of Backing Gas: **EN ISO 14175-I1-Ar**
Type of Welding Current and Polarity: **direct current (-)**
Mode of Metal Transfer: **---**
Heat Input: **0,27-0,9 kJ/mm**
Welding Positions: **PC+PF**
Preheat Temperature: **≥15,0°C**
Interpass Temperature: **≥150,0°C**
Post-Heating: **---**
Post-Weld Heat Treatment and/or: **---**

Other Information

For further details see WPS VO15E PC+PH and Techno Labor test report.

Certified that test welds were prepared, welded and tested satisfactorily in accordance with the requirements of the code/testing standard indicated above.

Location: **Dortmund**

Date of Issue: **18 June 2015**

Surveyor

Thomas Aschert
Hamburg Office


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For K. Nebel:

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