EPC: Logo	Owner / Buyer: Logo	WPS-Nº		Qualified Date	xx/xx/20xx	Fabricator: Logo
				Field / Shop Welding		

WELDING PROCEDURE SPECIFICATION (WPS)

QW-Code	ASME-IX: QW-200.1 (&) NACE RP-0472 _Part-5
Welds Application	Process Pipe Welding: Socket-weld Fittings

Ref.		Ref.		Process	GTAW + SMAW	Weld position	1G (Fillet Weld)	Job: Nº	

Fabricator address		Weldment -Nº		Volumetric NDT	
PQR-Nº		FOR		Compliance Spec.		MDMT: ºC	
PQR-Nº		FOR		Project Drawing/s		HSE - Welding Code	

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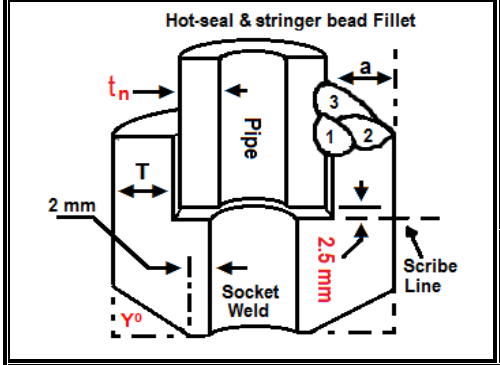
Joint Details	QW-402.1 + QW-402.6 + (§5.2.9)	Article-5 Welding Data: (QW-400) Welding Variables + Qualification Ranges + Technical Notes/ EPC Comments



NCPfirst_ X-Form_PDF example

Remarks	Weld the spool piece in the Socket-weld Valve first, -then cool at room temperature before welding to Sockolet, in order to prevent Valve seat damage.
WPS_QW-Test	NACE-MR 0175: Part 2_§ 7.3.3.3 _Fig. 3 + (Comformity to ASME-B31.3_Fig. 328.5.2C) (Result sheet attached)

Surface Condition	Rust Grade B	Mill Scale Removal	Clean complete weld area
Weldment Service	Hydrogen Service (Dry H_2S)	API 1104; Clause 5.3.2.10: Lay Hot-pass immediately after root pass	
Weldment Manipulation: *Static / Turn Table / Rollers / Lifting Gantry*	Static	(§4.9) Visual Quality Level	
(QB-422) Base Metal		Grade		Type	
Safety Factor (S_F) Nº		Weld Reinforcement (mm) = Leg-Length x S_F =		Weld Profile	B31.3_328.5.2

Groove Angle x^0 ±5º		Radius R_1		Fillet Leg (mm): a = 1.09 x t_n =		(QW-403.2) Metal Thk. Range (mm) 2T =		T =		t_n =	
Groove Angle y^0 ±5º		Radius R_2		Fillet Throat (mm) = 1.09 x Leg =		(QW-402.1) Joint Preparation					
Misalignments Tolerance (mm)		(QW-410.4) Welding Progression		Flat-forehand		(QW-410.6) Back Gouging Method					
Metal Designator	ASME_ QW-XXX	FOR	P-No. X: Group. X	Welded to	P-No. X: Group. X	Qualified-Pipe Diameter Range (mm)					

(B31.3-para.330)/(§5.2.7) Preheat (For)		Heating Mode		Heating Temp. ºC (Mini. – Maxi)		Soak-time (min)	
(QW-407.2)+(§4.3.2) SR/PWHT		Heating Rate: ºC /min		Hold: ºC		Soak-time (min)		Cooling Rate: ºC/ min.	
Heat Pads Type		Thermocouple Brand & Type		Thermocouple Locations: 1T/C, 2T/C, 3T/C, 4T/C)	
Tacking Method	Bridge Tack	Tack Weld-length (mm)		Tack Weld-spacing (mm)		Tack Weld Dressing/Removal	Removal

(QW-200.4b) Root Backing - Insert/Retainer		(QW-410.5) Inter-pass cleaning & Dressing	
(QW-404.23) Product Form (GTAW)		Batch-Nº		(QW-404.12) Filler Type		Brand	
(QW-404.23) Product Form (FCAW)		Batch-Nº		(QW-404.12) Filler Type		Brand	
(QW-404.23) Product Form (SMAW)		Batch-Nº		(QW-404.12) Flux Type		Brand	
(QW-408.2) Shielding Gas (GTAW)		(QW-408.2) Shielding Gas (FCAW)		Purging Gas	

(QW-256) GTAW	Manual	(QW-253) SMAW	Manual	(QW-255) FCAW / MCAW	Semi - Automatic	(QW-254) SAW	Fully - Automatic

(QW-250 thru. 280) MULTI-PROCESS PROCEDURE (QW-200.4 & QW-451.1) «AND» RECORDED **WELDING PARAMETERS** (QW-409)

QW-403 Bead Nº	§ 5.2.6 Process	QW-404 AWS-Filler Spec. & Class	QW-404 Filler Size mm	QW-409 Amps	QW-409 Volts	QW-409 Travel Speed mm/min	QW-409 Wire Feed inch/min	Cup Size mm	QW-408 Shield Gas Lt/min	QW-410.8 CTWD mm	QW-409 Heat Input kJ/mm	Purge Gas Lt/min	(QW- 410.1) (462.12 /13) Weld Bead Technique
1 TO -	GTAW												
2 TO 3	SMAW												
- TO -													
- TO -													
N*	E*	E*	N*	S* E*	S*	N*	S*	E*	E*	S*	N*	N*	S*+ {QW-409.1(b2)}

(QW-409) Current & Polarity: GTAW	DCRP (+)	(QW-409) Current & Polarity: SAW / SMAW	DCSP (-)	(QW-409) Current & Polarity: FCAW/MCAW	DCSP (-)
(QW-406.8) Max. Inter-pass Thk. Range (mm)	GTAW =	&	SMAW =	&	FCAW =	(403.2) Max. Inter-pass ºC	
FCAW / MCAW-Metal Transfer: Full or Semi Spray		GTAW_Tungsten Type		(403.2) Min. Inter-pass ºC	
MIG / 'STT-Metal Transfer: Globular, Short-Circuit, Semi Spray		(AWS-D1.1_Para. 5.27) Peening by: Hammer, Metal-shots, Peening-gun	
Filler Metal _F-Nº		Base Metal _A-Nº		(AWS-D1.1_ Para C-8.4.1) Fatigue-dressing Method: TIG, UP Burr-grinding	
(AWS-D1.1_Para. 5.3.2.4) Electrode Manufacturer Recommended Re-drying: ºC		Electrode Manufacturer Recommended Re-drying Soak time (min)	
Acceptance Criterion	ASME B31.3: §.311.2.2-Table 341.3.2. Criterion "A" + NACE-MR 0175	Heat Input: ➔ kJ/mm = (Amps x Volts x 60) ÷ TS {where: TS =Travel Speed x 1000}	
Project Specific Note			

Acronym: CHM =Continued Heat & Maintaining, S_F =Safety Factor, {* = Variables}, UP =Ultrasonic Peening, CTWD =Contact-To-Work-Distance, thk =Thickness, QW =ASME-IX, § = NACE RP-0472-Clause, SR =Stress Relief,

Declaration	*We declare that this WPS qualification Test coupon was welded & mechanical tested in the presence of the nominated Third Party/s ..... duly signed & stamped herein*					
Rev	Prepared by: (Welding Engineer)	Approved by: (QA / Manager)	ASME Accreditation Nº XXXXXXX	Welding Engineer (Stamp)	Third Party Inspection Agency (Stamp)	Third Party Inspection Agency (Stamp)
			ASME			