Offizielle Interpretationen zur Schweißerprüfungsnorm ISO 9606-1

Seit Veröffentlichung von ISO 9606-1 „Qualification testing of welders – Fusion welding – Part 1: Steels“ im Jahr 2012 sind aus verschiedenen Ländern Anfragen zum Verständnis und zur Auslegung der Norm gestellt worden. ISO/TC 44/SC 11 „ISO/TC 44/SC 11Qualification requirements for welding and allied processes personnel“ behandelt diese Fragen in seinen Sitzungen und veröffentlicht diese dann regelmäßig.

Die bislang gestellten Fragen wurden in den Sitzungen von ISO/TC 44/SC 11

am 08.04.2014 in Berlin

am 23.04.2015 in Düsseldorf

am 18.05.2016 in Essen

behandelt und beantwortet. Im Folgenden finden Sie die bisher gestellten Fragen in der Originalfassung zur ISO 9606-1:2012, einschließlich Cor 1:2012; entsprechend der Deutschen Fassung DIN EN ISO 9606-1:2013 „Prüfung von Schweißern – Schmelzschweißen – Teil 1: Stähle“, als Auszug aus dem Dokument ISO/TC 44/SC 11/N 348.

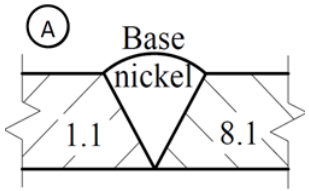
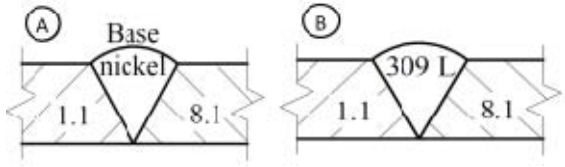
ISO/TC44 /SC 11 wird dabei:

- keine Beratung zur Anwendung der Norm liefern,
- keine Erläuterungen der Anforderungen selbst geben;
- nur die Anforderungen in der Norm klären;
- die Antworten nur mit ja oder nein geben und ggf. lediglich eine kurze Erklärungen liefern, wo es dem Leser hilft.

Sobald weitere geklärte Fragen beschieden wurden, wird diese Liste hier neu veröffentlicht.

ISO/TC 44/SC 11 – ISO 9606-1:2012 +COR 1:2012 and COR 2:2013 Interpretations

Date: 2016-06-03

Clause/ Subclause	Paragraph/ Figure/ Table/	Question	Response	Date approved by SC 11
Interpretations as considered (after 2016-05 meeting)				
		1. Which of ISO 287-1 or ISO 9606-4 standard shall be use to qualify the welders for type assembly 'A' here below? 	EN 287-1 is withdrawn. ISO 9606-1 shall be used If this is an existing EN 287-1 qualification, the ranges of EN ISO 9606-1 applies.	2016-05-18 France disagrees
		2. Based on answer to question 1 above A welder qualified with ISO 287-1 (or ISO 9606-4) standard in GTAW (141)process with solid wire on the assembly A is he qualified to weld assembly B? 	According ISO 9606-1 FM6 qualifies for FM5 so the answer is 'Yes"	2016-05-18
5.3	b) and c)	I am confused about clause 5.3 b and c. Two plate test sample is welded and one is welded for butt weld in PA position, and the other one is welded for fillet weld in PB position. What should be range of qualification for product type in this test? Should it be " P, T; D >=500 mm fixed PB, D >=75 mm rotating PA and PB" like this or there is something that I have misunderstood about those clause? And if only one plate was welded in PA position, should range of qualification of product type have been like this according to the clause 5.3 b and c; "P, T; D >=75 mm rotating PA" ?	If I understand it well, the problem is that it isn't possible to weld in a BW or FW in a fixed pipe in the PA position, the pipe must rotated otherwise it isn't technical not possible to weld this pipe. This means that 5.3.b cannot be applicable, and if he want to weld a pipe in the PA position he must rotate the pipe, and the 5.3.c is applicable and the range is D≥75 mm For the butt weld the range should be PA ≥ 75 mm and for the fillet PA, PB D≥75 mm (rotated) or PB ≥ 500 mm (PA fixed in pipe is also not possible.)	2016-05-18
5.4	d)	In the absence of a standard to qualify manual or semi-automatic welders for corrosion resistant overlay welding to a procedure qualified to ISO15614-7 can a test in accordance with ISO9606-1 : 5.4 d) be carried out as per ISO15614-7 Fig 1 or 2 but with sizes reduced to 150mm x 150mm for plate and a minimum of 150mm long for pipe to facilitate 100 % visual inspection and 4 off side bends as per ISO9606-1 Table 13?	YES. This would also align with ASME IX QW 453	2016-05-18

ISO/TC 44/SC 11 – ISO 9606-1:2012 +COR 1:2012 and COR 2:2013 Interpretations

Date: 2016-06-03

Clause/ Subclause	Paragraph/ Figure/ Table/	Question	Response	Date approved by SC 11
Intro and 5.4 e)		Can a welder qualified in accordance with EN 287-1 be given an additional fillet weld test in accordance with ISO 9606-1:2012, Clause 5.4.e, to extend his range of qualification for butt welding to include fillet welds?	Yes And this shall be indicated on the alignment document. The validation period of the alignment document is determined by the validation period for the butt weld.	2014-04-08
Intro and 9.3 b)		For existing welder qualifications to ISO 9606-1:1994 or EN 287-1, can a new qualification record be prepared using the testing conditions shown on the existing qualification record but applying the ranges qualified in accordance with ISO 9606- 1:2012?	Yes Provided that sufficient data is available to address that all qualification variables specified in (EN) ISO 9606-1:2012 are satisfied. The new alignment document shall indicate that revalidation is based on the requirements of ISO 9606-1:2012+COR 1:2012, Clause 9.3 b).	2014-04-08
Intro and 6.5.2.3		A welder took a test under ISO 9606-1:1994 or EN 287-1. The test piece was examined by bend testing in full accordance with that standard. Is that test considered to be "technically equivalent" to the bend tests specified in (EN-) ISO 9606-1:2012?	Yes	2014-04-08
	Tables 1 and 6	A welder welds a butt weld test piece that is 12 mm thick in which he deposits one layer of weld metal 3 mm thick using process 138 followed by two layers of weld metal 9 mm thick using process 136 as permitted by the last clause of part 5.2 For the above test piece, may a welder make a production weld that is 24 mm of weld metal using only process 136 in one joint based on Table 1, multi-process qualification column where s = s1 + s2?	No In Table 1in the multi-process qualification column, s is simply the deposited thickness in the weld consisting of s1 + s2.	2015-04-23
Clause 5.4, Type of weld e)		A welder is qualified for a butt weld in position PE with an additional supplementary fillet weld test piece in the position PB. Is his range qualified is PA, PB, PC, PD, PE for fillet welds?	Yes	2015-04-23 will be revised in next edition
Clause 5.4 e)		Should the reference in paragraph 5.4 to Figure 3 be figure 4?	Yes	2015-04-23 will be revised in next edition

ISO/TC 44/SC 11 – ISO 9606-1:2012 +COR 1:2012 and COR 2:2013 Interpretations

Date: 2016-06-03

Clause/ Subclause	Paragraph/ Figure/ Table/	Question	Response	Date approved by SC 11
	Table 6	A welder welds a butt weld test piece that is 12 mm thick in which he deposits one layer of weld metal 3 mm thick using process 138 followed by two layers of weld metal 9 mm thick using process 136 as permitted by the last clause of part 5.2 For the above test piece, may a welder make a production weld using both welding processes depositing 6 mm of weld metal using process 138 and 18 mm of weld metal using process 136 in one joint?	Yes However, only process 138 can be used for the root deposit according to Table 1 when that root deposit is made without backing.	2015-04-23
	Table 6	A welder welds a butt weld test piece that is 12 mm thick in which he deposits one layer of weld metal 3 mm thick using process 138 followed by two layers of weld metal 9 mm thick using process 136 as permitted by the last clause of part 5.2 Is this welder qualified to deposit weld metal from 3 to 6 mm in thickness using process 138 and from 3 to 18 mm in thickness using process 136 with each process separately?	Yes The weld deposit thickness range for which the welder is qualified is based on the approximate deposit thickness that he deposits with each process in the test piece. See Table 6, note f. and Table 1	2015-04-23
	Table 6, Note f	“For multi-processes, s is the deposited thickness for each process” applies to the last line. Does it apply also to thinner test pieces that are welded with more than one process?	Yes	2012-07-18
	Table 7	Is the thickness range for a fillet weld test piece t=1,4 mm, 1,4mm to 3,0mm?	Yes	2015-04-23
	Table 7	Is the thickness range for a fillet weld test piece t=2,9 mm, 2,9mm – 5,8 mm.	Yes	2015-04-23
	Table 7	What is the qualified thickness range for a welder that took a fillet weld test with a test piece with unequal plate thicknesses for example plate t_a=2 mm welded to plate t_B=20 mm? The thickness range is: Plate A = 2 - 4 mm Plate B ≥ 3 mm.	Yes	2015-04-23
	Table 9	Does H-L045 qualify PH? and Does J-L045 qualify PJ?	Yes The heading for columns 1 to 5 will be revised to read "Range of qualification for production welding" in the next edition	2014-04-08

ISO/TC 44/SC 11 – ISO 9606-1:2012 +COR 1:2012 and COR 2:2013 Interpretations

Date: 2016-06-03

Clause/ Subclause	Paragraph/ Figure/ Table/	Question	Response	Date approved by SC 11
	Table 11 & Annex A	n using process 13, 14 or 15, a welder qualifies without material backing and without gas backing, his range qualified is with and without material backing and with and without gas backing. When completing the “range qualified" column on the record, the abbreviations available to show what a welder is qualified to do are mb (with material backing), gb (with gas backing) and nb (with no backing). Does the abbreviation “nb” include welding without material backing and without gas backing?	Yes	2015-04-23
	Table 11	Does the use of Flux backing only apply to processes 121, 125, 13, 14 and 15	Yes	2015-04-23
	Table 11	Does gas backing only apply for processes 13, 14 and 15?	Yes	2012-07-18
	Table 11	Does consumable insert only apply to processes 14 and 15?	Yes	2012-07-18
	Table 11	Does the use of Flux backing only apply to processes 13, 14 and 15	Yes	2012-07-18
Clause 8.4, Type of weld b)		If a welder produced a test piece under 5.4 b), are the tests according to table 13 for fillet and butt welds required?	Yes	2015-04-23 will be clarified in next edition to say butt and fillet welds in p2 of 5.4, b)