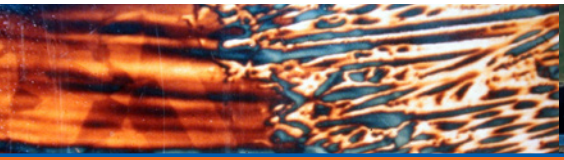
joined for welding

GSI SLV

Gesellschaft für Schweißtechnik
International mbH



NON-DESTRUCTIVE TESTING (NDT) 2016/2017

LOCATIONS

Educational Programme Non-Destructive Testing (NDT)

GSI SLV
Gesellschaft für Schweißtechnik International mbH

- Branch of GSI mbH
- Cooperating Facility of GSI mbH

CONTENT

Educational Programme Non-Destructive Testing (NDT)

PREFACE

Educational Programme Non-Destructive Testing (NDT)

Already 15 years ago the GSI started using digital media for their education. To this end, so called blended learning training courses were developed, which consist of a combination of individually completed e-learning phases on the computer and class training in one of the SLVs. Furthermore, chosen programs for supporting the education have been offered such as our web based program "Basics of ultrasonic testing".

This, however is only the beginning of using modern technology in education. The latest trend within the GSI is to produce training pieces for chosen fields used in the practical NDT-education by means of additive manufacturing methods. Hereby, it is possible to use reproducible, practical samples that are uniform for all participants. Moreover, causal relations to physics may be visualized using transparent plastic parts. Furthermore, by means of the additive manufacturing processes, special problems from industry may be clearly and vividly conveyed.

For the year 2017, our education will not only be modified and extended, respectively, but our range of services has also been expanded by the welding part of the international welding inspection personnel (IWIP). Within this training course with a duration of up to 101 lessons, the knowledge on welding processes, materials, constructions and guidelines is taught. Hereby, the requirement to conclude the testing-technological part of the IWI is fulfilled, i.e. without obtaining the IWE/IWT or IWS diploma before. This is particularly interesting since there will be the additional opportunity to be issued a certificate in accordance with DIN EN ISO 9712 for the product sector welding for levels C and S on the basis of the IWI training course for methods VT2, PT2, MT2 or RT2. To this end, it is only required to prolong the training by one day each for the methods VT, PT and MT and for two days for the method RT2.FI after the IWI testing training has been accomplished and to pass a qualification exam each. Having proven the visual acuity and the required periods of industrial experience, the certification in accordance with ISO 9712 may then be applied for. Thus, the IWI participant will receive an IWI diploma and up to four certificates in accordance with ISO 9712 as well as a profound expertise in the fields of welding and testing with comparatively little effort!

Furthermore, the GSI offers all participants of an IWI training course the access to an e-learning training "Basics of ultrasonic testing" free of charge via the internet three months before and one month after the training.
This is also valid for the participants of each training course on the topic of ultrasonic testing, i.e. UT1, UT2, Phased Array or TOFD.

This program of the GSI and its allied institutes for the year 2017 is listing our training courses for non-destructive material testing in accordance with DIN EN ISO 9712.

Numerous of our training courses are also available as company courses offering a lot of ad-vantages for you. We would be glad to consult you individually at your SLV.

GSI – your competent partner nearby !

PRICE LIST 2016/2017

PRICE LIST

Non-Destructive Testing (NDT) 2016

NDT-COURSES*

* All fees of the training courses are without VAT and valid until 31.12.2016.
The fees are subject to changes.
All courses on demand. The required minimum number of attendees is five people.

COURSE	COSTS
MT 1	840.00 €
MT 2	1,050.00 €
MT 1/2	1,740.00 €
MT 1/2 short	1,430.00 €
PT 1	840.00 €
PT 2	1,050.00 €
PT 1/2	1,740.00 €
PT 1/2 short	1,430.00 €
PT 1/2 + MT 1/2 both	2,820.00 €
VT 1/2	1,870.00 €
VT 1/2 w	1,870.00 €
VT 1/2 Kurz	1,430.00 €
VT 1/2 wd	1,430.00 €
VT 1/2 is	1,430.00 €
VT 1/2 wl	1,430.00 €
VT 1/2 wp	1,430.00 €
UT 1	2,780.00 €
UT 2	2,270.00 €
UT 2 Practical Training	1,510.00 €
Phased Array	1,850.00 €
TOFD	2,270.00 €
RT 1	2,620.00 €
RT 2	2,440.00 €
RT 2 Practical Training	1,750.00 €
RT 2.FI	1,900.00 €
DR 2 w	1,120.00 €
DR 2	1,310.00 €
MT 3/PT 3	2,450.00 €
UT 3	2,850.00 €
RT 3	2,850.00 €
VT 3	1,770.00 €
HT 1/2	1,280.00 €
Basic Course Level 3	3,120.00 €

NON-DESTRUCTIVE TESTING (NDT) – PRICE LIST 2016

NON-DESTRUCTIVE TESTING (NDT) – PRICE LIST 2016

EXAMINATION	COSTS
MT 1	660.00 €
MT 2	660.00 €
MT 1/2	660.00 €
MT 1/2 short	660.00 €
PT 1	600.00 €
PT 2	600.00 €
PT 1/2	600.00 €
PT 1/2 short	600.00 €
PT 1/2 + MT 1/2 both	1,130.00 €
VT 1/2	600.00 €
VT 1/2 w	600.00 €
VT 1/2 short	600.00 €
VT 1/2 wd	600.00 €
VT 1/2 is	600.00 €
VT 1/2 wl	600.00 €
VT 1/2 wp	600.00 €
UT 1	695.00 €
UT 2	695.00 €
Phased Array	690.00 €
TOFD	690.00 €
RT 1	900.00 €
RT 2	900.00 €
RT 2.FI	670.00 €
DR 2 w	600.00 €
DR 2	600.00 €
MT 3/PT 3	1,130.00 €
UT 3	920.00 €
RT 3	920.00 €
VT 3	665.00 €
HT 1/2 (without Certification)	465.00 €
Basic Course Level 3	860.00 €

EXAMINATION/ CERTIFICATION*

* The examinations/certifications are invoiced on behalf of the TÜV Nord and are quoted plus legal value added tax (currently 19 %).
For the cooperating institutions SLV Halle and SLV Mecklenburg-Vorpommern the fee mentioned for the examinations/certifications is invoiced plus value added tax as a gross fee (currently 19 %).

PRICE LIST
Non-Destructive Testing (NDT) 2017

NDT-COURSES*

* All fees of the training courses are without VAT and valid until 31.12.2016.
The fees are subject to changes.
All courses on demand. The required minimum number of attendees is five people.

COURSE	COSTS
MT 1	860.00 €
MT 2	1,075.00 €
MT 1/2	1,770.00 €
MT 1/2 short	1,460.00 €
PT 1	860.00 €
PT 2	1,075.00 €
PT 1/2	1,770.00 €
PT 1/2 short	1,460.00 €
PT 1/2 + MT 1/2 both	2,870.00 €
VT 1/2	1,900.00 €
VT 1/2 w	1,900.00 €
VT 1/2 short	1,460.00 €
VT 1/2 wd	1,460.00 €
VT 1/2 is	1,460.00 €
VT 1/2 wl	1,460.00 €
VT 1/2 wp	1,460.00 €
UT 1	2,810.00 €
UT 2	2,300.00 €
UT 2 Practical Training	1,550.00 €
Phased Array	1,850.00 €
TOFD	2,270.00 €
RT 1	2,670.00 €
RT 2	2,490.00 €
RT 2 Practical Training	1,780.00 €
RT 2.FI	1,950.00 €
DR 1	1,400.00 €
DR 2 w	1,140.00 €
DR 2	1,340.00 €
TT 1 w (passiv)	1,850.00 €
TT 2 w (passiv)	2,000.00 €
MT 3/PT 3	2,500.00 €
UT 3	2,900.00 €
RT 3	2,900.00 €
VT 3	1,800.00 €
HT 1/2	1,300.00 €
Basic Course Level 3	3,200.00 €

NON-DESTRUCTIVE TESTING (NDT) – PRICE LIST 2017

NON-DESTRUCTIVE TESTING (NDT) – PRICE LIST 2017

EXAMINATION	COSTS
MT 1	680.00 €
MT 2	680.00 €
MT 1/2	680.00 €
MT 1/2 short	680.00 €
PT 1	620.00 €
PT 2	620.00 €
PT 1/2	620.00 €
PT 1/2 short	620.00 €
PT 1/2 + MT 1/2 both	1,165.00 €
VT 1/2	620.00 €
VT 1/2 w	620.00 €
VT 1/2 short	620.00 €
VT 1/2 wd	620.00 €
VT 1/2 is	620.00 €
VT 1/2 wl	620.00 €
VT 1/2 wp	620.00 €
UT 1	715.00 €
UT 2	715.00 €
Phased Array	690.00 €
TOFD	690.00 €
RT 1	925.00 €
RT 2	925.00 €
RT 2.FI	690.00 €
DR 1	620.00 €
DR 2 w	620.00 €
DR 2	620.00 €
TT 1 w (passiv)	715.00 €
TT 2 w (passiv)	715.00 €
MT 3/PT 3	1,165.00 €
UT 3	945.00 €
RT 3	945.00 €
VT 3	685.00 €

EXAMINATION/ CERTIFICATION*

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INTERNATIONAL WELDING INSPECTOR

A welding coordinator of the future?

In DIN EN ISO 14731 the tasks and responsibilities of persons are described who are occupied in welding of products (welding coordinators). Commonly, these are welding coordinators who have been employed in many companies in Germany for decades. German standards such as DIN 18800-7 or DIN 6700 have defined the tasks of these persons with the focus on welding. Depending on the scope of manufacturing, different skills of the welding coordinators are required (welding engineer, welding technologist, welding specialist).

The European successive standards such as EN 1090 define the manufacturing processes of welded products as special processes within the scope of quality management such as the fabrication production control to be specified and supervised including the respective documentation. Beside of welding there is flame straightening, flame cutting or designing. But also activities in the fields of non-destructive testing or of corrosion protection are to be described and controlled. If a company intends to be certified according to ISO 9000, ISO 3834 or within the scope of the PED, further requirements may be defined. Hereby, the requirements of a welding coordinator in its classical sense are extended by further technical competences and thus by further responsibilities.

In most of the companies the focus lies within production processes in the fields of welding and testing. DIN EN ISO 14731 focuses on the combination of these tasks and responsibilities of the welding coordinator, i.e. skills are required in both fields, in order to fulfil the tasks professionally and legally safeguarded.

For this purpose, the occupational profile of the International Welding Inspection Personnel (IWIP) was developed. These persons receive instruction in both, welding and testing theory and practice. The education is based on an international IIW guideline where the minimum requirements for education and testing of the IWIP have been laid down according to a three-level system. Depending on the scope of tasks and the requirements profile, a distinction is made between comprehensive knowledge C, specific knowledge S and basic knowledge B.

In the welding part with a duration of up to 101 hours depending on the level, knowledge on welding, materials, designs and guidelines is taught. This serves as a basis of competent support and consulting in welding processes for many companies. As from 2017 the GSI will offer the respective IWI welding training courses.

After having concluded the IWI welding course, the testing part of the IWI training comprising of up to 122 lessons depending on its level will follow – by the way, for the welding course, certificates as IWE, IWT or IWS will be acknowledge. To this end, the knowledge of the testing methods VT, PT, MT, UT and RT relevant to welding including the evaluation of films (RT2.FI) will be taught near to practice. It should be emphasized that there will be the opportunity for holders of an IWI certificate level C or S to obtain a certificate in accordance with DIN EN ISO 9712 in the methods VT2, PT2, MT2 or RT2.FI. To this end, it is only required to extend the training by one day each for the methods VT, PT and MT and for two days for the method RT2.FI after the IWI testing training has been accomplished and to pass a qualification exam each. Having proven the visual acuity and the required periods of industrial experience, the certification in accordance with ISO 9712 may then be applied for.

Moreover, the GSI offers all participants of an IWI training course the access to an e-learning training "Basics of ultrasonic testing" free of charge via the internet three months before and one month after the training.

Back to the initial question: Is the IWI a welding coordinator for the future? The answer is: YES!

For numerous industries and trades it is an ideal and economic solution to fulfil the welding and testing requirements given by product and application standards, particularly if the opportunity is taken to obtain the offered level 2 qualification in accordance with DIN EN ISO 9712. Manufacturing companies with more complex production processes will have to fulfil further requirements on e.g. corrosion protection with the IWI offering the basis of each further training.

Are you interested?
Do not hesitate to contact us: **www.gsi-slv.de**

NON-DESTRUCTIVE TESTING (NDT)

NON-DESTRUCTIVE TESTING (NDT)

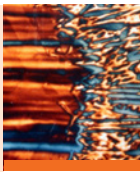
Educational Programme Non-Destructive Testing (NDT)

The examinations/certifications are invoiced on behalf of the TÜV Nord and are quoted plus legal value added tax (currently 19 %).

For the cooperating institutions SLV Halle and SLV Mecklenburg-Vorpommern the fee mentioned for the examinations/certifications is invoiced plus value added tax as a gross fee (currently 19 %).

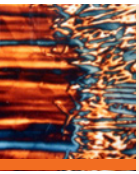
All courses on demand. The required minimum number of attendees is five people.

01. Radiographic Testing (RT) Level 1 incl. Practical Training



Participants	Inspection personnel	
Note	Knowledge corresponding to that of a skilled worker in a technical occupation, if possible in metal processing is desirable. In case of proving the required experience in the field of radiographic testing and the physical aptitude (eye test), the certification of the participant can be issued.	
Duration	*Course/Practical Training:*	72 hours
	Examination/Certification:	8 hours
Fee 2016	*Course:*	2,620.00 €
	Examination/Certification:	900.00 €
Fee 2017	*Course:*	2,670.00 €
	Examination/Certification:	925.00 €

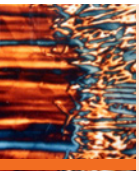
All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).



02. Radiographic Testing (RT) Level 2 incl. Practical Training

Participants	Inspection personnel	
Note	A proof of participation at the course RT1 is required. In case of proving the required experience in the field of radiographic testing and the physical aptitude (eye test), the certification of the participant can be issued.	
Duration	*Course/Practical Training:*	80 hours/40 hours
	Examination/Certification:	8 hours
Fee 2016	*Course/Practical Training:*	2,440.00 €/1,750.00 €
	Examination/Certification:	900.00 €
Fee 2017	*Course/Practical Training:*	2,490.00 €/1,780.00 €
	Examination/Certification:	925.00 €

All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).

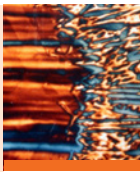


03. Radiographic Testing – Film Interpretation Level 2 (RT2.FI)

Participants	Inspection personnel	
Note	If the required experience in the field of film interpretation and the physical aptitude can be proven (eye test), certification of level 2 of the participant according to EN ISO 9712 level 2 for the sector film interpretation of weld seams can be issued.	
Duration	*Course:*	56 hours
	Examination/Certification:	8 hours
Fee 2016	*Course:*	1,900.00 €
	Examination/Certification:	670.00 €
Fee 2017	*Course:*	1,950.00 €
	Examination/Certification:	690.00 €

All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).

04. Digital Radioscopic Testing (DR) Level 2



Participants

Operators of digital radioscopic systems, who have passed a course RT1 or level 2 training (RT1, RT2) according to EN ISO 9712, receive after a 4-days course the certificate DR2w for the testing of weld seams by digital radioscopy.
Participants who have passed a level 1 (RT1) or level 2 (RT2) according to EN ISO 9712, receive the certificate DR2 for the testing of weld seams and cast parts by digital radioscopy after a 5-days course.

Duration

Course for sector welding:	32 hours
Course multi sectors:	40 hours
Examination/Certification:	per 8 hours

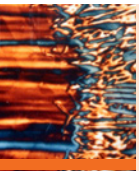
Fee 2016

Course sector weld seam:	1,120.00 €
Course multi sectors:	1,310.00 €
Examination/Certification:	600.00 €

Fee 2017

Course sector weld seam:	1,140.00 €
Course multi sectors:	1,340.00 €
Examination/Certification:	620.00 €

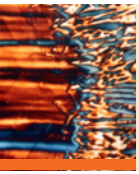
All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).



05. Ultrasonic Testing (UT) Level 1 incl. Practical Training

Participants	Inspection personnel	
Note	Knowledge corresponding to that of a skilled worker in a technical profession, if possible in metal processing is desirable. In case of proving the required experience in the field of ultrasonic testing and the physical aptitude (eye test), the certification of the participant according to EN ISO 9712 can be issued.	
Duration	*Course/Practical Training:*	90 hours
	Examination/Certification:	8 hours
Fee 2016	*Course/Practical Training:*	2,780.00 €
	Examination/Certification:	695.00 €
Fee 2017	*Course/Practical Training:*	2,810.00 €
	Examination/Certification:	715.00 €

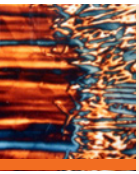
All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).



06. Ultrasonic Testing (UT) Level 2 incl. Practical Training

Participants	Inspection personnel	
Note	A Certificate of attendance at the course UT1 is required. In case of proving the required experience in the field of ultrasonic testing and the physical aptitude (eye test), the certification of the participant according to EN ISO 9712 can be issued.	
Duration	*Course:*	100 hours
	Practical Training:	50 hours
	Examination:	8 hours
Fee 2016	*Course:*	2,270.00 €
	Practical Training:	1,510.00 €
	Examination/Certification:	695.00 €
Fee 2017	*Course:*	2,300.00 €
	Practical Training:	1,550.00 €
	Examination/Certification:	715.00 €

All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).

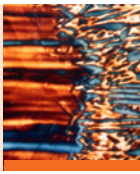


07. Phased Array Course

Participants	Persons who have passed an ultrasonic testing course, recommended: level 2 (UT2) according to EN ISO 9712	
Duration	*Course:*	40 hours
	Examination:	8 hours
Fee 2016	*Course:*	1,850.00 €
	Examination/Certification:	690.00 €
Fee 2017	*Course:*	1,850.00 €
	Examination/Certification:	690.00 €

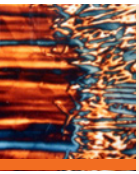
All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).

08. Time of Flight Diffraction TOFD/QTOFD Course



Participants	Persons who have passed an UT2 training course	
Note	This advanced training course requires common knowledge in the field of ultrasonic testing and is suitable for persons with UT2 certificate according to EN ISO 9712.	
Duration	64 hours	
Fee 2016	*Course:*	2,270.00 €
	Examination:	690.00 €
Fee 2017	*Course:*	2,270.00 €
	Examination:	690.00 €

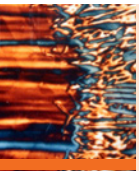
All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).



09. Penetrant Testing (PT) Level 1 and Level 2

Participants	Inspection personnel	
Note	In case of proving the required experience in the field of penetrant testing and the physical aptitude (eye test), the certification of the participant can be issued. Participants fulfilling the required qualifications can attend a shortened training for Engineers level 2 or a combination of shortened trainings of VT and MT..	
Duration	*Course PT 1/2:*	40 hours + 8 hours *Examination/Certification*
	Course PT 1/2 short:	20 hours + 8 hours *Examination/Certification*
	Course PT 1/2 + MT 1/2 both:	40 hours + 16 hours *Examination/Certification*
Fee 2016	*Course PT 1/2:*	1.740,00 € + *Examination/Certification:* 600.00 €
	Examination PT 1/2 short:	1.430,00 € + *Examination/Certification:* 600.00 €
	Course PT 1/2 + MT 1/2 both:	2.820,00 € + *Examination/Certification:* 1,130.00 €
Fee 2017	*Course PT 1/2:*	1.770,00 € + *Examination/Certification:* 620.00 €
	Examination PT 1/2 short:	1.460,00 € + *Examination/Certification:* 620.00 €
	Course PT 1/2 + MT 1/2 both:	2.870,00 € + *Examination/Certification:* 1,165.00 €

All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).

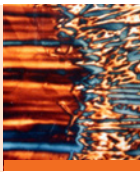


10. Magnetic Particle Testing (MT) Level 1 and Level 2

Participants	Inspection personnel	
Note	Knowledge corresponding to that of a skilled worker in a technical profession, if possible in metal processing, is desirable. In case of proving the required experience in the field of magnetic particle testing and the physical aptitude (eye test), the certification of the participant according to EN ISO 9712 can be issued. Participants fulfilling the required qualifications can attend a shortened training for Engineers level 2.	
Duration	*Course MT 1/2:*	40 hours + 8 hours *Examination/Certification*
	Course MT 1/2 short:	24 hours + 8 hours *Examination/Certification*
	Course PT 1/2 + MT 1/2 both:	40 hours + 16 hours *Examination/Certification*
Fee 2016	*Course MT 1/2:*	1.740,00 € + *Examination/Certification:* 660.00 €
	Course MT 1/2 short:	1.430,00 € + *Examination/Certification:* 660.00 €
	Course PT 1/2 + MT 1/2 both:	2.820,00 € + *Examination/Certification:* 1,130.00 €
Fee 2017	*Course MT 1/2:*	1.770,00 € + *Examination/Certification:* 680.00 €
	Course MT 1/2 short:	1.460,00 € + *Examination/Certification:* 680.00 €

All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).

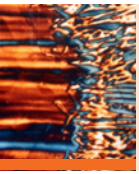
11. Overview of Visual Testing (VT) Training Courses



METHOD	DURATION (DAYS/h) Training	Examination	REQUIRED QUALIFICATION	RESTRICTION
VT 1/2	5/40	1/8	None	None
VT 1/2 w	4/40	1/8	None	Product sector Welded Products (w)
VT 1/2 short	3/24	1/8	Welding Coordinator, Engineer	Product sector Welded Products (w)
VT 1/2 wd	3/24	1/8	None	Product sector Welded Products (w) Direct Visual Testing
VT 1/2 is - P	3/24	1/8	Welding Coordinator, Engineer	Industry sector Pipeline Construction
VT 1/2 wl	3/24	1/8	Welding Coordinator, Engineer	Product sector Laser Welded seams
VT 1/2 wp	2/20	0,5/4	Welding Coordinator	Sector Welder's qualification test

We would like to elaborate a special offer for alternative In-house Training in your company. In such training we can focus on your products.

VT 1/2 – Visual Testing (VT) Level 1 and 2
wd – Product sector welded Products, direct Visual Testing
wl – Sector Laser welded seams
is-P – Industrial sector Pipelines Construction
wp – Sector welder's qualification test
w – Welded Products



12. Visual Testing (VT) Level 1 and Level 2

Participants Inspection personnel

Note Knowledge corresponding to that of a skilled worker in a technical profession, if possible in metal processing, is desirable. In case of proving the required experience in the field of visual testing and the physical aptitude (eye test), the certificate can be issued.
Participants fulfilling the required qualifications can attend a shortened training course level 2 or a combination of shortened trainings of PT.
Additional we offer shortened training courses level 2 sectors welded products and laser welded seams

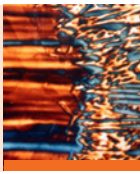
.

Duration	*Course VT 1/2 or Course VT 1/2 w*:* *Course VT 1/2 short or VT 1/2 wd** *or VT 1/2 wl* or VT 1/2 is-RLB*:* *Course VT 1/2 wp*:*	40 hours + 8 hours *Examination/Certification* 24 hours + 8 hours *Examination/Certification* 20 hours + 4 hours *Examination/Certification*
Fee 2016	*Course VT 1/2 or Course VT 1/2 w*:* *Course VT 1/2 short or VT 1/2 wd** *or VT 1/2 wl* or VT 1/2 is-RLB*:* *Course VT 1/2 wp*:*	1.870,00 € + *Examination/Certification:* 600.00 € 1.430,00 € + *Examination/Certification:* 600.00 € 1.430,00 € + *Examination/Certification:* 600.00 €
Fee 2017	*Course VT 1/2 or Course VT 1/2 w*:* *Course VT 1/2 short or VT 1/2 wd** *or VT 1/2 wl* or VT 1/2 is-RLB*:* *Course VT 1/2 wp*:*	1.900,00 € + *Examination/Certification:* 620.00 € 1.460,00 € + *Examination/Certification:* 620.00 € 1.460,00 € + *Examination/Certification:* 620.00 €

All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).

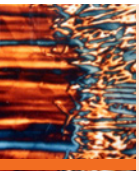
*wd Product sector Welded Products, Visual Testing *wl Sector Laser welded seams *is-RLB Industry sector Pipeline Construction
*wp Sector welder's qualification test *w Weld seams

13. VT – Additional Training Course for Cast and Forged Parts



Note	This certificate entitles the participant to reduce the duration of a multi-sectorial VT - training course; a certificate according to EN ISO 9712 can be issued.	
Duration	*Course:*	16 hours
	Examination:	8 hours
Fee 2016	*Course:*	750.00 €
	Examination:	360.00 €
Fee 2017	*Course:*	775.00 €
	Examination:	372.00 €

All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).

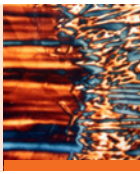


14. VT - Advanced Training Course for Measuring and Evaluation of Welded Joints

Note	At the end every participant receives a certificate of participation.
Duration	8 hours
Fee 2016	390.00 €
Fee 2017	390.00 €

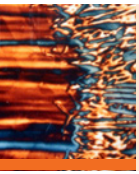
All courses are free of VAT, but subject to alterations.

15. Evaluation of Welded Joints according to the current Standards (VT, RT2.FI)



Participants	Welder, Welding Inspectors, Welding Specialists, Welding Engineers, Quality Management
Note	At the end every participant receives a certificate of participation.
Duration	8 hours
Fee 2016	390.00 €
Fee 2017	400.00 €

All courses are free of VAT, but subject to alterations.

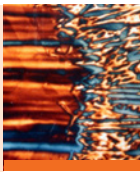


16. Basic Course for Level 3

Participants	International Welding Inspection Personnel (IWIP) or Inspectors in level 2, who are certified within four methods according to EN ISO 9712, (the method UT or RT has to be included).	
Note	The certification for level 3 requires the practical examination in level 2 in respective method.	
Duration	*Course:*	80 hours
	Examination/Certification:	8 hours
Fee 2016	*Course:*	3,120.00 €
	Examination/Certification:	860.00 €
Fee 2017	*Course:*	3,200.00 €
	Examination/Certification:	880.00 €

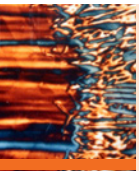
All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).

17. Training Courses Level 3 according to EN ISO 9712



Participants	Candidates with a basic examination (Basic Course) and practical examination in level 2 according to EN ISO 9712 in the corresponding method		
Note	VT 3 – Courses on request		
Duration	*RT 3 and UT 3:*	70 hours + 1 day *Examination/Certification*	
	MT 3/PT 3:	70 hours + 1 day *Examination/Certification*	
	VT 3:	40 hours + 1 day *Examination/Certification*	
Fee 2016	*RT 3-Course:*	2,850.00 € + *Examination/Certification:*	920.00 €
	UT 3 - Course:	2,850.00 € + *Examination/Certification:*	920.00 €
	MT 3/PT 3-Course:	2,450.00 € + *Examination/Certification:*	1,130.00 €
	VT 3 - Course:	1,770.00 € + *Examination/Certification:*	665.00 €
Fee 2017	*UT 3 - Course:*	2,900.00 € + *Examination/Certification:*	945.00 €
	MT 3/PT 3-Course:	2,500.00 € + *Examination/Certification:*	1,165.00 €
	VT 3 - Course:	1,800.00 € + *Examination/Certification:*	685.00 €

All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).



18. E-learning Course Ultrasonic Testing (UT) Level 1 according to EN ISO 9712

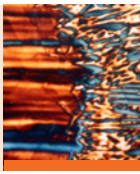
eLearning

New training programs in NDT!

Duration	*Course/Practical training:*	40 hours *classroom learning*
	Examination:	8 hours
Fee 2016	*UT1 - E-Learning Course:*	1,800.00 €
	Examination / Certification:	695.00 €
Fee 2017	*UT1 - E-Learning Course:*	1,855.00 €
	Examination / Certification:	715.00 €

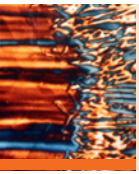
All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).

19. Radiation Protection for Inspectors (S3.1 and R1.2/R1.3)



Participants	Inspection personnel and welding personnel
Note	Practical experiences in technical radiography are desirable
Duration	32 hours
Fee 2016	1,300.00 €
Fee 2017	1,300.00 €

All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).

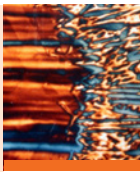


20. New possibilities of Ultrasonic Testing according to the current Standards (Conventional Examinations, Phased Array, Time of Flight Diffraction, Airborne Ultrasound)

Participants	Inspection personnel, Welding Engineers, Ultrasonic Operator
Note	At the end of the course every participant receives a certificate of attendance.
Duration	8 hours
Fee 2016	400.00 €

All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).

21. Thermography (TT) level 1



Participants Inspection personal, operator of industrial plants

Content Thermography gains an increasing importance in the weld seam monitoring as a non-destructive testing method. Especially, the passive thermography provides innovative pitches for the process control of automatic produced welded joints. Thereby, an image of the local weld seam surface temperature or radiation distribution is received by use of thermography. Furthermore, this method additionally draws conclusions about the weld seam surface and volume.
Hence, the generation of a convincing thermogram is an important task of a level 1 thermography tester. After imparting wide practical knowledge in thermodynamics and instrument engineering, thermogram analysing methods are presented the participant, additional. Actual standards and grounded knowledge in thermography of important welding processes are imparted as well. The detection of weld seam quality deviations is focused by this course.

Note The education is mono-sectorial for the product sector of weld seams. According to DIN EN ISO 9712, the participant will be issued a certification by the certification authority after having successfully concluded the course. Beforehand, the participant has to attest his or her industrial experience in the field of thermography and his or her physical aptitude (eye test).

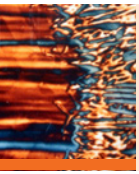
Duration

Course:	40 hours
Examination/Certification:	8 hours

Fee 2017

Course:	1,850.00 €
Examination/Certification:	715.00 €

All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).



22. Thermography (TT) level 2

Participants

Inspection personal, operator of industrial plants

Content

Thermography gains an increasing importance in the weld seam monitoring as a non-destructive testing method. Especially, the passive thermography provides innovative pitches for the process control of automatic produced welded joints. Thereby, an image of the local weld seam surface temperature or radiation distribution is received by use of thermography. Furthermore, this method additionally draws conclusions about the weld seam surface and volume.
Hence, the generation and evaluation of a convincing thermogram are an important task of a level 2 thermography tester (passive). Furthermore, the participant gains knowledge about software based evaluation systems and trains practically the technique handling. Actual standards and results in research applications are imparted as well. All types of fusion, resistant spot welding, laser and laser hybrid junctions for metals and non-metals are topic of this course. The detection of weld seam quality deviations and the generation of a test instruction for a level 1 personal are focused by this course.

Note

The education is mono-sectorial for the product sector weld seams. According the DIN EN ISO 9712, the participant gets a certification of the certification authority after successful course passing. Beforehand, the participant has to attest the industrial experience duration in the sphere of thermography and a physical condition (eye test).

Duration

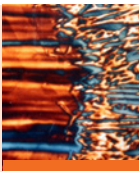
Course:	40 hours
Examination/Certification:	8 hours

Fee 2017

Course:	2,000.00 €
Examination/Certification:	715.00 €

All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).

23. Digital Radioscopy (DR) level 1



Participants Inspection personal, operator of industrial plants

Content Besides the ultrasonic test, the radiographic test is the most applied volumetric test method in the field of non-destructive materials testing for inner weld seam imperfections, cast and forged products in different applications. With the help of energy rich X-rays, radiation attenuation at different materials or imperfections will occur. The attenuation is visible at a screen by special image converters and detectors. The fast processing of digital software based information offers lots of opportunities. An evaluation of different wall thicknesses is possible by using a digital contrast amplification. In addition, chemically developing is no longer required by means of the digital technique. The participant will receive some knowledge about the physical basics, the functionality of digital image converters and detectors in presentations and practical training. Furthermore, the image processing and current standards are part of the course.

Note According the DIN EN ISO 9712, the participant will be issured a certification by the certification authority after having successfully concluded the course. Beforehand, the participant has to attest his or her industrial experience in the field of of radiographic testing as well as his/her a physical aptitude (eye test).

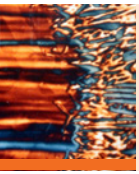
Duration

Course:	40 hours
Examination/Certification:	8 hours

Fee 2017

Course:	1,400.00 €
Examination/Certification:	620.00 €

All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).



24. Introduction to the thermography of welded joints

Participants	Inspection personal, operator of industrial plants, interested welding supervisor
Content	Thermography has gained increasing importance in the weld seam monitoring as a non-destructive testing method. Particularly,, passive thermography provides innovative significance for the process control of the automated production of welded joints. Thereby, an image of the local weld seam surface temperature or radiation distribution is received by the use of thermography. Furthermore, this method will draw conclusions about the weld seam surface and volume. During the seminar, possibilities and limits of this technique as well as current standards are presented. The participant will get a first insight into the thermogram analysing opportunities. Additionally, the participant will be actively involved in adjusting thermograms during a small practical training. The detection of weld seam imperfections will be focused in this seminar.
Note	Each participant will be issured a certificate of participation with the corresponding time performance record for the advanced training at the end of the seminar. The seminar is accepted as a period of pre-experience in thermography according toe DIN EN ISO 9712.
Duration	8 hours
Fee 2017	450.00 €

All courses are free of VAT, but subject to alterations. The examination fees will be calculated on behalf the TÜV and do not include VAT (19 % at present).

IMPRINT

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