

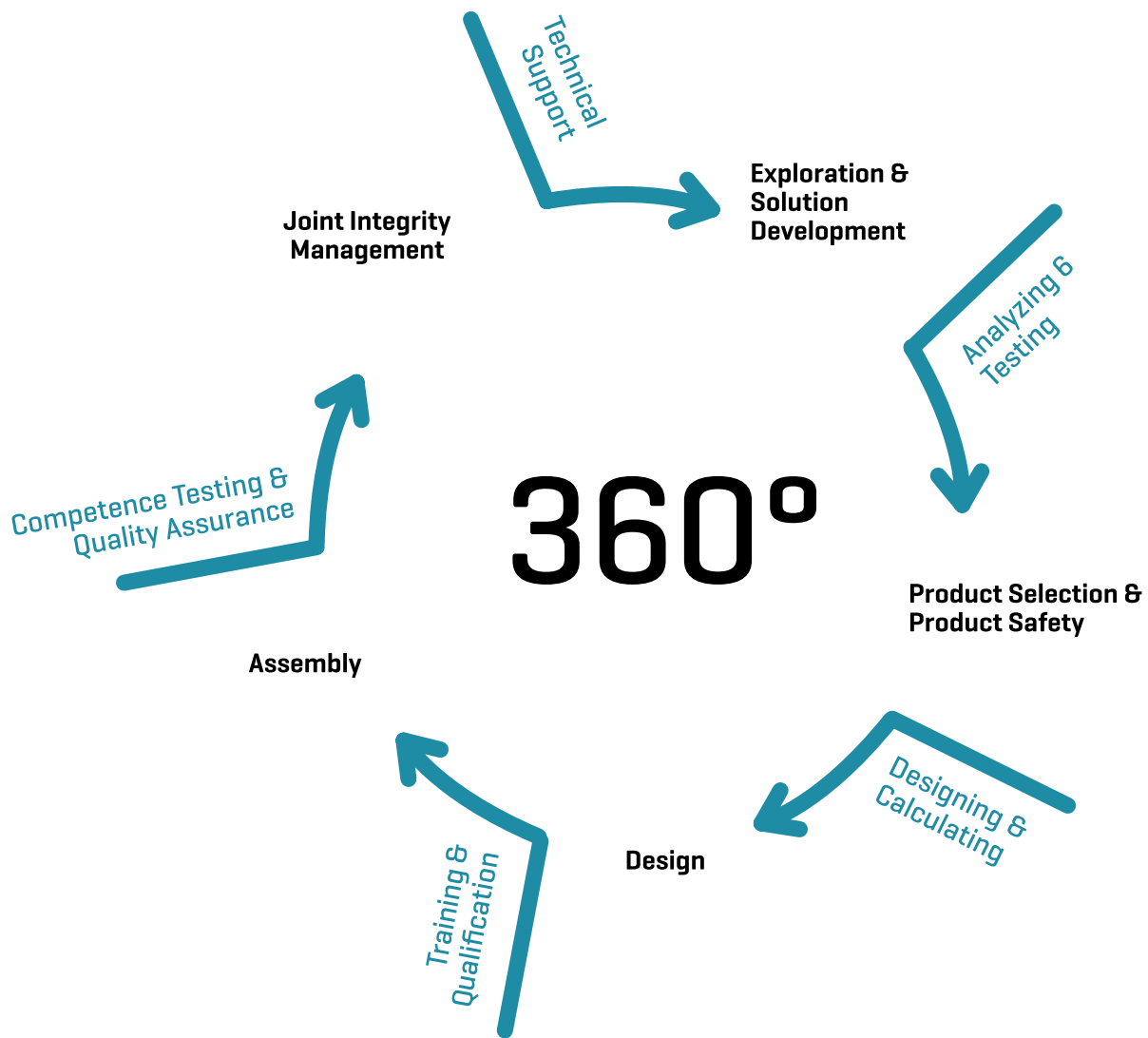


ADVANCED SERVICE

Flexible to Your Needs. Reliable at Every Turn.

Our Advanced Service allows you to focus on the work most critical for your success.

We support you in all directions: with calculations, training and quality assurance, as well as flange management for TA projects; we are experts and problem solvers for technical issues. Our Advanced Service is tailored to your needs.



ENGINEERING

CALCULATIONS

We offer calculations for flange connections and pipe classes according to DIN EN 1591-1:2014 and KTA 3211.2 as well as the finite element method [FEM].

Our actions are determined by environmental and climate protection, which also shape directives and laws. National and European regulations require an extensive depth of proof for leakage requirements [e.g. TA Luft 2021, Pressure Equipment Directive: Pressure Equipment Directive: PED, VDI 2290].

To provide proof of structural integrity and leak tightness in accordance with DIN EN 1591-1, the entire flange connection system consisting of flange, bolt and gasket must be considered. The aim of the calculation is to limit the stress on individual components by determining the degree of utilisation and to ensure sufficient surface pressure of the gasket during operation.

The method determines the required installation bolt force, which is essential for reliable installation and safe system operation. The determined value is mandatory, regardless of the type of connection; this applies to standard and special constructions alike.

GASKET CHARACTERISTIC

Plant designers need gasket characteristic to ensure that their calculation models comply with the proof of leak tightness according to DIN EN 1591-1. For manufacturers with a professional quality management system, characteristics are essential for holistic product responsibility, as they allow for reliable statements about manufacturer-specific and material-specific features.

We determine gasket characteristics values in accordance with the European standard DIN EN 13555 – Basis for the calculation and design of flange connections and pipe classes in accordance with DIN EN 1591-1.

INDIVIDUAL TESTS & INSPECTIONS

With individual tests and inspections, we help customers to analyse new products and materials under operating conditions before the first application. When testing, our guiding principle is our customers' duty of care. We want to prevent risks and create solutions, even when requirements change and you still want to be able to plan with certainty.

EQUIPMENT	TEST
TEMES	FL.A11 Compression, pressure level, creep and relaxation tests; classic leakage tests Component tests in real flange connections to determine the sealing behaviour according to VDI 2440/2200
VALVE.TEQ	Leakage test of stuffing box packing and housing seal under specified operating conditions according to standard specifications of TA Luft in accordance with ISO 15848-1, VDI 2440 or API 622 Leakage test of stuffing box packing and housing seal under specified operating conditions according to standard specifications of the TA Luft in accordance with individual test procedures Determination of characteristic values with packing module

ACADEMY

We want to contribute to your success! Our Academy combines flange assembly training, individual training and learning formats on the latest developments in sealing technology under one roof – certified · online · live. We take care of everything you need for growth, exactly where you need it.

CERTIFIED TRAINING

Our TÜV-certified flange assembly training in accordance with DIN EN 1591-4:2013-12 is the foundations for risk mitigation. Incorrectly assembled flange connections pose a real danger and are one of the main reasons for leakage: Consequences can include the risk of explosion, environmental pollution and production losses. Assembly expertise is essential to counteract these risks. We prepare you both in terms of theory and practical applications, with training and examination materials according to a standard-compliant syllabus. Once you have successfully completed the basic qualification, you will receive a certificate according to DIN EN 1591-4 and you'll also have the opportunity to take additional modules.

The training is particularly suitable for bolting fitters, their supervisors, responsible engineers and technical managers who have to assemble and maintain connections in pressurised systems in critical applications.

Certification:	TÜV Süd
Training venue:	On-site or at the IDT training center
Training duration:	1 day
Group size:	Max. 20 ppl in the training center or customized group size for mobile training courses
Examination & assessment:	Theoretical and practical examination with certificate according to DIN EN 1591-4
Validity & extension:	5 years provided that there is no interruption of more than six months and no grounds for doubting the qualification

INDIVIDUAL TRAINING COURSES

We teach expert and specialised knowledge of sealing technology in individual, practice-oriented training courses that are tailored to your needs. We can provide professional training for plant planners, engineers and technical buyers just as we can for workshop managers, foremen or QA staff. Choose from our modules or contact us about your specific training needs. We will work together to develop a customized training program.

Certification:	None
Training venue:	Online seminar, on-site, IDT training center
Training duration:	Customized
Group size:	Max. 20 persons in the training centre or customized group size for online seminars and mobile training courses
Examination & assessment:	No examination, simple confirmation of participation
Validity & extension:	None



BASIC TRAINING

MODULE	DESCRIPTION
Engineering I Flange connections & components, flange styles & mode of action, bolts as a critical element	Clear communication of the basics of sealing technology as well as the relevance of the overall flange-bolt-gasket system.
Engineering II Calculation & design of flange connections	The focus is on various calculation and design methods as well as the characteristic values that are important for the design.
Engineering III Failure analysis	The causes and consequences of damage cases are explained in a practical way with the help of visual material and field reports.
Sealing technology I Basics, handling, storage	Focused training covering the basic properties of gaskets and their handling in practice.
Sealing technology II Product and application knowledge relating to gaskets	Which factors have to be taken into account when selecting a product, how do you determine the right gasket for the application? These and other questions from everyday maintenance form the basis of this module.
Sealing technology III Product and application knowledge relating to stuffing box packings & packing rings	Focused training on the basic properties of stuffing box packings and packing rings and their handling in practice.
Practical basics Disassembly and assembly of flange connections	Basic knowledge of current requirements for the professional disassembly and reassembly of flange connections.

TURNAROUND

Your goals are our focus. With technical expertise and qualified personnel, our TA support is reliably at your side to ensure success operational excellence in Joint Integrity Management.

COMPETENCE TESTS

The recruitment of qualified fitters with TA experience poses a real challenge. Our competence tests provide reliable training that minimizes risks, increases plant safety and allows you to reach your goals with certainty: First Time Right. Our tests are based on the specifications of the flange assembly training according to DIN EN 1591-4. We check the suitability of your assembly personnel efficiently and reliably. To this end, we teach general and customer-specific assembly specifications in the theoretical part, and we test and assess the skills associated with professional flange assembly and disassembly in the practical part.

Certification:	None
Training venue:	On-site
Group size:	Max. 12 persons/test
Training duration:	2-3 hours
Examination & assessment:	No examination, simple confirmation of participation
Validity & extension:	Retesting recommended in 1-2 years

QUALITY ASSURANCE & FLANGE MANAGEMENT

Staying on schedule is your top priority? Then you have come to the right place. Our team checks and documents flange connections, material use and professional assembly on-site.

For transparency and efficiency in test documentation and provision of proof obligations, we have developed the mobile application software QS.Pilot. With the App, we provide customized and completely reliable electronic documentation of the testing processes as well as a wide range of evaluation options for the follow-up of your project – tailored to your needs. Our extensive experience in large-scale turnarounds allows us to set new standards in Joint Integrity Management that improve both structural and process quality as well as the success of your project.



INTELLIGENT STOCKKEEPING

In large-scale turnarounds, your time and resources are valuable. Picking, managing and issuing assembly materials is time-consuming and tedious. Use our service to be sure that the material is always available and additional requirements can be met with flexibility and at short notice at any time.

We provide you with exactly what you need for effortless material management from a simple on-site warehouses and management by our specialist staff right through to a mobile production workshop for rush orders and spontaneous demand.