

# Good Titration Practice™



## **GTP™ – Dependable Titration**

Consistently high quality

Minimized risk

Reduced costs

Protection of your investment

## **Reliable Results**

Dependable Titration in Practice

**METTLER TOLEDO**

# Risk-free Titration

## Minimizing Risks

**GTP™ covers the entire lifecycle of your investment. Dependable titration starts long before daily routines in the laboratory: A requirements-based selection of the titration system, as well as professional installation and training form the basis for dependable and risk-free titration.**

Targeted maintenance and proper handling ensure correct, reproducible results in daily use. METTLER TOLEDO offers comprehensive support for all steps to ensure that you invest in the right area and minimize risks with targeted efforts.

### Steps 1 & 2:

Evaluation and selection



Selecting the right analytical system not only involves knowing your current needs, but must also take into account future requirements. This includes early planning of the measures for commissioning and routines. You can secure the first few steps on the right path by using our professional consulting services and documentation of your requirements.

### Steps 3 & 4:

Installation and qualification



GxP guidelines demand professional commissioning and qualification of the analytical instruments used in QC or production. These activities also need to be documented in a way that's easy to understand and traceable. The services offered by METTLER TOLEDO encompass execution of the qualification process, including all documentation. In line with

GTP™, this also includes professional training which gives you the confidence and skills to operate the titrator correctly.



## GTP™

Good Titration Practice™

### Step 5: Routines



Well trained users and regularly maintained titrators reduce the likelihood of day-to-day measurement errors, preventing potentially expensive follow-up costs.

METTLER TOLEDO's many years of expertise and experience are available in the form of comprehensive literature and trained sales consultants. Seminars are

also available for users to refresh their knowledge.

METTLER TOLEDO offers specifically tailored services for regular care and maintenance, helping minimize the most common risks with minimal effort.

# A Long Term Solution Protection of Your Investment

**GTP™ supports you in fulfilling your requirements from the onset and making the right instrument selection.**

- Compliance with regulations
- Preservation of the accuracy and precision of results
- Increased productivity and reduced costs
- Minimization of risks
- Professional commissioning and qualification
- Professional user training

## GTPSecure™ Services

### Evaluation (DQ)



#### Design qualification

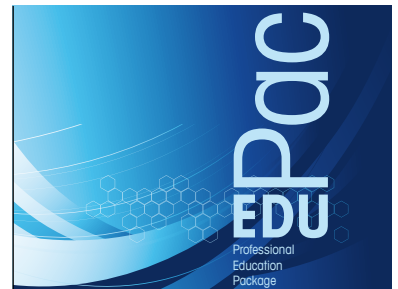
Verify and document your requirements carefully together with our trained sales team.

### Installation & Qualification (IQ/OQ)



#### Qualification

IPacs and EQPacs are professionally drafted qualification documents. They ensure correct execution of equipment qualification processes in line with standard regulations.



#### Training

With EduPac you can create a sound training base for your users. It can also be used at any time for re-training or when deploying new staff.



### GTPSecure™

The best long-term package of services, GTPSecure™ will help you protect your investment far into the future, and is perfectly in line with GTP™.

#### Routines (PQ)



#### Good Titration Practice™ routines

Our numerous application brochures and reference books offer comprehensive assistance for daily titration.



#### Preventive maintenance

With this service you not only prevent risks, but also secure up to three years of warranty services.

► [www.mt.com/GTP-riskchecker](http://www.mt.com/GTP-riskchecker)

# One Click Titration™

## Simple, Efficient, and Dependable

**Successful companies choose the most direct path to achieve their objectives. In doing so, they secure a competitive edge, allowing them to offer their customers a key advantage. This direct path excels due to its simplicity, efficiency and reliability.**

One Click Titration™ is more than just a Shortcut or touch of a button. It's a uniform and intuitive user concept stretching across all titration models, with a view to making daily work in the lab as easy as possible.

One Click Titration™ represents the perfect embodiment of efficiency and maximum reliability. You obtain not only accurate, but fast results at the touch of a button. The Shortcuts allow each user access to all daily operations on their own customizable Homescreen.

### Plug and Play



With their Plug & Play design, the titrant and sensor are automatically detected when connected to the titrator. All relevant data are saved on the burette or sensor chip.

### Homescreen and Shortcuts



Whether calibrating sensors, rinsing burettes, or starting a sample series – you can define Shortcuts for all operations and add them to your user-specific Homescreen.

### Titration Compact Line



The volumetric and coulometric Karl Fischer Compact titrators are suitable for simple and secure One Click™ water determination, and the G20 Compact titrator is ideal for use as an intelligent helper for simple One Click Titration™.



One Click Titration™ – a uniform and intuitive interface for all METTLER TOLEDO titrators.

### Titration Excellence



The Excellence titrators also employ the intuitive One Click™ concept. Their modular structure allows creation of a tailor-made, custom system. This makes it easy to implement complex automation processes, which can be launched with a single touch of a button.

The system can be expanded at any time, growing with your requirements. LabX® PC software facilitates electronic data management and enables external control, up to and including integration into a network.

► [www.mt.com/one-click-titration](http://www.mt.com/one-click-titration)

# Accurate Measurements from the Start Knowledge is a Powerful Tool

**Professional commissioning, training, qualification and seamless documentation guarantee compliance with your process requirements from the very first titration.**

## Reduce costs – increase expertise

The training and qualification solutions from METTLER TOLEDO provide certainty when it comes to quality assurance and conformity. These services offer several advantages:

- No time wasted – efficient installation and qualification get your titrator up and running quickly.
- Increased productivity – training by an expert helps you familiarize yourself with the instrument immediately, allowing you to get started on productive work more quickly.
- Conformity – limits the risk of potentially failing FDA or other audits due to lack of the necessary documentation.

## GTPSecure™ services for installation



### IPac

#### Initial Qualification Package

IPac is the quick and easy solution for equipment qualification. It includes the Installation Qualification and Operational Qualification processes (IQ/OQ), which are performed professionally and documented accordingly.



### EQPac

#### Equipment Qualification Package

EQPac is the total equipment qualification package, meeting the strictest regulatory demands and requirements. Comprehensive documentation with a professionally executed qualification procedure, ensures conformity and establishes complete traceability from the very start.



### EduPac

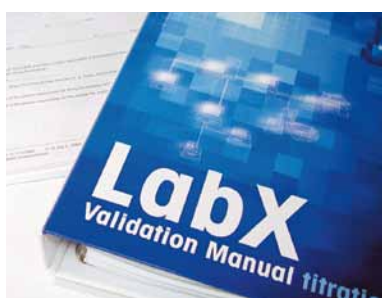
#### Education Package

Under the watchful eye of our specialist, this training package helps you familiarize yourself with the titrator, and ensures you understand the basics through practical exercises:

- Configuration and setup
- Plug & Play concept
- Manual operations
- Structure of methods and analyses



Make the most of our experience and minimize risk from the onset.



**LabX® software validation**

METTLER TOLEDO supports you, providing validation of the LabX® software.

**Validation service**

On-site support for validation.

**Re-validation service**

Information package including all forms required for re-validation following a LabX® upgrade or update.

**Validation manual I**

Contains all information required for qualification of METTLER TOLEDO as a software manufacturer.

**Validation manual II**

Contains all regulations and forms required to perform LabX® validation.

# Innovative Services for Consistently Accurate Titration

**Measurements can involve risks, which may impair the quality of your products. Avoid measurement errors in your daily operations by having well-trained users and thorough regular maintenance of your titrators.**

## Valuable know-how

Benefit from METTLER TOLEDO's many years of experience and expertise with our comprehensive application database, available to you on the Internet. Refresh your knowledge in one of the Webinars or seminars we offer, where you can also exchange experiences with other users. METTLER TOLEDO offers services for regular care and maintenance, helping secure optimized use and reducing many risks.

## Knowledge is a powerful tool – make the most of our know-how



### Webinars

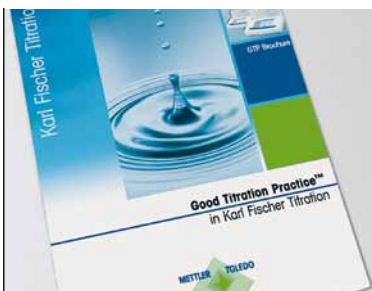
Free-of-charge live or on-demand webinars.

► [www.mt.com/webinars](http://www.mt.com/webinars)

### Seminars

Our latest range of user seminars in your area.

► [www.mt.com/seminars](http://www.mt.com/seminars)



### Literature

Comprehensive documentation covering topics such as the basics of titration, all the way up to practical support.

► [www.mt.com/gtp](http://www.mt.com/gtp)



### Applications

Select from more than 500 applications for your intended use.

► [www.mt.com/titration\\_applications](http://www.mt.com/titration_applications)



## Maintenance



### Preventive maintenance

There are many factors involved in ensuring excellent and consistent performance of a titrator. Use of aggressive reagents or intensive daily use can strain and possibly compromise the technical components of the titration system. An annual inspection and preventive maintenance help keep devices working correctly, ensuring that measurement accuracy is maintained. This also minimizes the risk of equipment failure.



### Titration calibration

Periodic standardization does not replace a full calibration process, which METTLER TOLEDO recommends once a year for all titrators and burettes. Having a certificate confirming calibration of the sensor inputs, the stroke of the burette drive, and the volume accuracy of the burette is the best evidence of continuous equipment performance and consistent measurement accuracy.

► [www.mt.com/GTP-service](http://www.mt.com/GTP-service)

# Practical Knowledge for Dependable Titration

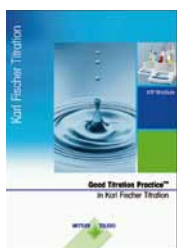
Here you can find the latest literature regarding GTP™ from METTLER TOLEDO.



## GTP Tips and Hints

What is the most effective way to get the best titration results?

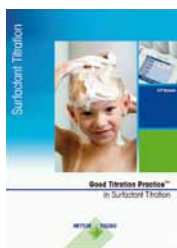
(51725313, English)



## GTP in Karl Fischer Titration

Practical application brochure for Karl Fischer titration with tips and tricks.

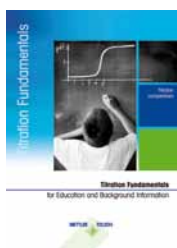
(51725145, English)



## GTP in Surfactant Titration

Practical application brochure for surfactant titration with tips and tricks.

(51725279, English)



## Titration Fundamentals

Detailed fundamentals on the theory of titration.

(51725311, English)

[www.mt.com/GTP](http://www.mt.com/GTP)

For more information

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### GTP™

Good Titration Practice™

GTP® reduces the risks associated with titration and facilitates

- compliance with regulations
- preservation of the accuracy and precision of results
- increased productivity and reduced costs
- professional qualification and training

[www.mt.com/GTP](http://www.mt.com/GTP)