

# Weight Calibration



## **ComparatorPac™**

Simple Calibration

Efficient Workflow

Reliable Results



**Safe and Simple Weight Calibration**  
with ComparatorPac™

**METTLER TOLEDO**





# Weight Calibration for Traceable Results



Balances should always be tested with calibrated weights you can rely on and trust. Calibrated weights are traceable to the International Prototype and ensure accurate weighing results.

METTLER TOLEDO's unmatched reputation is built upon years of experience as well as joint projects with leading institutes. The ComparatorPac™ offers a complete solution for weight calibration laboratories with the added benefit of a unique global support and service network.

## Calibration Process

Calibration Cycle	Type of Weight	Location
 25 years	International Prototype 1 kg	BIPM, Sèvres, France
 10 years	National Prototype 1 kg	CH, F, UK, USA, ... e.g. METAS, Bern, Switzerland
 5 years	Primary Standard 1 kg	CH, F, UK, USA, ... e.g. METAS, Bern, Switzerland
 1-2 years	<b>Your Calibration Laboratory</b>	<b>Regional, Local or Company in-house</b>
	Calibrated weights for routine test	Work area with SOP or regulation

Weight calibration ensures full traceability which is achieved through an unbroken chain of comparisons. All calibrations are traceable back to the International Prototype at the BIPM (Bureau International des Poids et Mesures) in Paris.

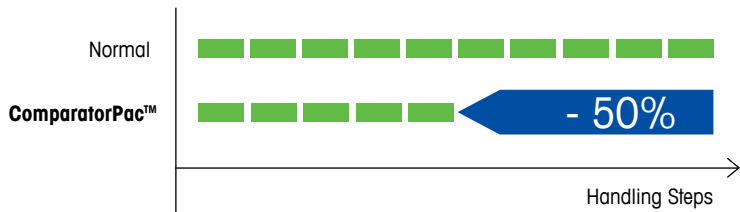
## ComparatorPac™



With ComparatorPac™ you have a unique ready-to-start calibration solution consisting of:

- 3 Comparators to calibrate weights up to 20 kg
- PC Software for calibration and certificate printing

With a comprehensive portfolio of comparators, software options and weights, the ComparatorPac™ can be adapted to individual needs.



**Weight Calibration Process**

Productivity features and guided processes eliminate many manual operations to increase the process speed by more than 70%. Calibration results are displayed instantly while highest data integrity is ensured throughout the process.

**Calibration Range**

1 mg – 20 kg OIML F2 – M3 / NIST F / ASTM 4–7, CarePacs®, weight sets and grip handle weights



Your Benefits



simple calibration



efficient workflow



reliable results

# Simple Weight Calibration with One Touch

The calibration process is easily started by identifying the weight by serial number. After choosing reference weight and calibration method the multilingual MC Link software provides full step-by-step user guidance supported by displaying real time results. Other innovative features such as sensor doors and LevelControl, as well as the ergonomic design make daily calibrations as simple and efficient as possible.



## Comparator Balances



### XPE56C Comparator

- Calibration range OIML F2: 1 mg – 50 g
- Max. Load: 52 g
- Readability: 0.001 mg
- Repeatability: 0.003 mg
- Overload protection
- Process guidance by MC Link
- Motorized draft shields
- Grid & Hanging weighing pan
- LevelControl indicator



### XPE2004SC Comparator

- Calibration range OIML F2: 20 g – 2 kg
- Max. Load: 2300 g
- Readability: 0.1 mg
- Repeatability: 0.25mg
- Overload protection
- Process guidance by MC Link
- Adaptable draftshield
- LevelMatic weighing pan
- LevelControl indicator



### XPE32003LC Comparator

- Calibration range OIML F2: 5 kg – 20 kg
- Max. Load: 32100 g
- Readability: 5 mg
- Repeatability: 10 mg
- Overload protection
- Process guidance by MC Link
- Robust weighing platform
- Rectangular weighing pan
- LevelControl indicator



## XPE Comparator Benefits



### **Hands-free Operation**

For faster and more secure workflows, motorized doors are controlled through SmartSens™ or MC Link allowing hands-free operation resulting in less fatigue.



### **Peak Performance**

Eccentricity influences are eliminated accurately and efficiently. Innovative gravimetric eccentricity aids such as hanging weighing pans and LevelMatic reduce operator influences while eliminating eccentricity errors.



### **Included MC Link Software**

Efficient workflows are guaranteed through the included PC software MC Link which guarantees accurate and secure results, full traceability and regulatory compliance at all times.



# Efficient and Reliable Calibration with Quality Tools

**METTLER TOLEDO's weight references are of the highest quality and are calibrated at our accredited Mass Laboratories to ensure accurate and reliable results.**

**Customize your laboratory setup through the addition of MC Link Options improving productivity, connecting existing comparators and simplifying the accreditation process.**



## Weights



1 mg – 5 kg OIML F1

## Benefits



### Robust Design

Premium steel, with a high gloss corrosion resistant surface for longtime stability.



### Product Quality

Magnetization and susceptibility are strictly controlled to ensure compliance with standards.

## MC Link Options



### Barcode Labeling

Increased productivity by barcode labeling and faultless identification.



### Compliance

Audit Trail and Validation Handbook enable and simplify compliance accreditation.



## MC Link Benefits



### Traceable Results

Using MC Link, all weighing results are sent directly to a PC where they are safely stored. Important calibration data is fully traceable and available at any time for quality or accreditation purposes.



### Powerful Solution

Increase productivity by networking mass comparators and climate stations. Immediate data processing such as air buoyancy correction combined with the web-based interface enables users to have full process control wirelessly on any tablet or PC.



### Professional Reports

MC Link automatically creates calibration reports at a keystroke. All parameters, processes used, references and results, with or without calculations, can be exported or easily printed in a professional certificate ready for sign-off.

# Expertise and Support that Takes You Further

Technical data	XPE56C Comparator	XPE2004SC Comparator	XPE32003LC Comparator
	30137970	30138751	30138756
Maximum load	52 g	2300 g	32.1 kg
Readability	1 µg	0.1 mg	5 mg
Repeatability at nominal load (5x ABA, measured at)	3 µg (50 g)	0.25 mg (2 kg)	10 mg (30 kg)
Repeatability at low load (5x ABA, measured at)	0.7 µg (10 g)	0.1 mg (100 g)	5 mg (2 kg)
Settling time	3.5 s	3.5 s	8 ...12 s
Adjustment built-in	proFACT	proFACT	proFACT
Adjustment with external weight	≤ 50 g	≤ 500 g	≤ 5 kg
Admissible environmental conditions	temperature: 10...30 °C; max. change: 0.5°C / 24h relative humidity: 40 – 70 %		



## Tailored Services

All our Swiss trained service technicians use accredited methods to test and document comparator performance. The comparator lifetime is enhanced whilst ensuring accurate weighing results and minimum risk.



## Worldwide Support

Need some technical advice, mass metrology theory training, or even consultation for a new mass laboratory set-up? We are your partner in metrology and want to see you profit from our metrology know-how.

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

For more information

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