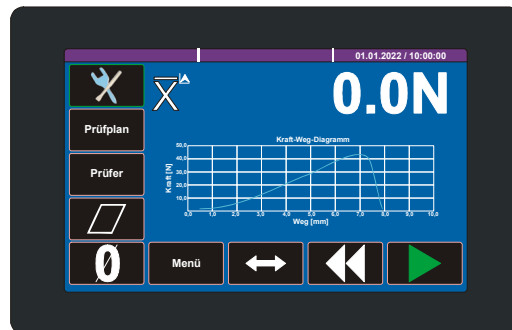
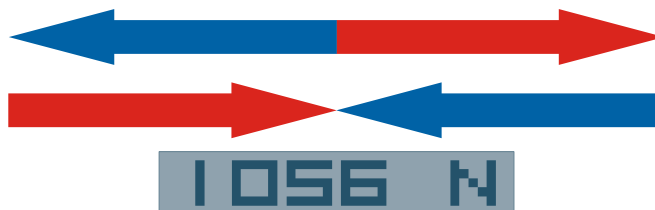


MI&T Mess- & Prüftechnik Berlin
Measuring Instruments & Testers

**Force Gauges
Test Systems
Test Stations**



Advanced Force Measurement



MI&T GmbH Mess- und Prüftechnik **Berlin**
Measuring Instruments & Testers
Krokusstr. 9, 12357 Berlin - Germany

Tel. +49 (0)30 766 89 381- www.MIT-Tester.de - info@MIT-Tester.de



Universal Test Station model MTM



MTM 100 with SG 80 and DKS-20/A

- Digital Test Stations with automatic motor drive for pull, press, bend, elongation and break tests
- Easy to operate units with comprehensive functions
- Internal measuring rate: 10000 Hz
- Large and good readable touch screen panel
- Adjustable test speed
- Test plans can be created for fixed test parameter settings
- Users can be created and saved (with password)
- Measurement series management
- Preset of test load for non-destructive tests
- Hold under load function with adjustable hold time
- Integrated stroke measuring unit
- Graphic display of measured force/distance curves
- Repeat tests
- Password protection for test parameter settings
- various test programs selectable.
- RS232C-, USB-, LAN- interface ports
- Universal quick change tool mounting adaptors.

Model overview MTM- and ATM advanced Test Stations

Type	Indication Range [N]	MTM Resolution [N]	ATM -A Resolution [N]
5	0- 50	0.005	0.01
10	0- 100	0.01	0.02
25	0- 250	0.02	0.05
50	0- 500	0.05	0.1
100	0- 1000	0.1	0.2
200	0- 2000	0.2	0.5
500	0- 5000	0.5	1
1000	0-10000	1	2



ATM 100-A with SG 80 and DKS-20/A

Motorized Test Station model ATM advanced



ATM 1000 with SG 90 and SHA-40W/A

- Motorized Test Stations with automatic motor drive for tension and compression tests
- Tracking and Peak Point Mode
- Internal measuring rate of 10000 Hz
- Large touch screen panel for operation of test station
- Adjustable test speed
- Automatic zero point and tare compensation
- Preset of test load for non-destructive tests
- Hold under load function with adjustable hold time
- Auto print function
- Break Stop Function with automatic stop and reverse
- Graphical representation of measured values
- Continuous cycle operation
- Users and test plans can be created
- Measured value memory and data output
- Real time clock for printout with date and time
- RS232C and USB port
- Setup menu for setting internal parameters and adjustment
- Universal quick change tool mounting adaptors.

Motorized Tester model FTM



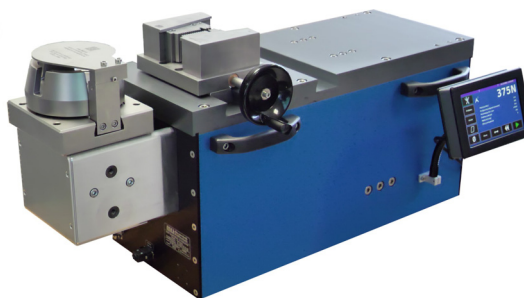
FTM 500 with SG 90 and SHA-40/A

- Digital Tester for tension, compression and break tests
- Tester with motor drive for constant test speed
- 3 factory-provided test speeds, selectable by customer between 5 and 600 (300) mm/min.
- Space saving and easy to operate testers
- Rapid internal measuring rate of 10000 Hz and high resolution for exact force readings
- Indications and operation of measuring system via durable infrared sensor screen with dot matrix LCD display
- Keypad control unit for operation of drive system
- Zero correction and tare compensation
- Set point capability
- Measured value memory and real time clock for report output via RS232C serial port
- Setup menu for setting device parameters and adjustment
- Universal quick change tool mounting adaptors.

Model overview FTM Testers

Type	Indication range [N]	Resolution [N]
5	0- 50	0.01
10	0- 100	0.02
25	0- 250	0.05
50	0- 500	0.1
100	0- 1000	0.2
200	0- 2000	0.5
500	0- 5000	1
1000	0-10000	2

Heavy-duty Test Station STM 25 kN



STM 25 kN with SG 150 and WCC 25 kN

Test Station STM 25 kN

- Compact and easy-to-use test station with large touch screen panel and automatic motor drive.
- Indication range 0- 25 kN, Resolution 3 N
- Internal measuring rate of 10000 Hz
- Tracking and Peak Point Mode
- Adjustable test speed 5-300 mm/mm.
- Operation via TFT colour touch screen display
- Preset of test load for non-destructive tests
- Break Stop Function with automatic stop and reverse
- Automatic zero point and tare compensation
- Create and save test plans for test parameters
- Users can be created (with password)
- Measuring series management
- Autoprint/Auto Save function can be activated.
- Password protection for test parameter settings
- Auto Zero at start of test selectable
- Graphical representation of measured values
- Language selectable: D, E, F, ES

Test Devices DFG-KBP 500



DFG-KBP 500H and DFG-KBP 500V

With the test devices DFG-KBP 500 cost-effective, small and mobile test devices are available. If frequent testing of cable tie pistols is required the DFG-KBP 500 can be used for tests to be carried out quickly without inserting and fixing the pistol in a special fixture. We recommend this alternative in addition to a test device with firmly fixed and exact positioned cable tie tighten pistol in the case that frequent in-process testing is required. The DFG-KBP test device is universally suitable for all manually and pneumatically operated cable tie pistols.
 DFG-KBP 500: Indication range 0-500 N, resolution 0,05 N
 DFG-KBP 500H with horizontal arrangement of slots.
 DFG-KBP 500V with vertical arrangement of slots.

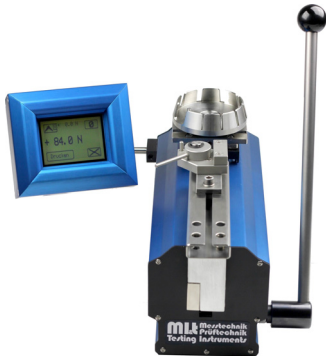
Pull & Press Tester model FTH



Tester FTH with SG 80 and MK-8/A

- Force Tester for pull and press force tests in material testing and quality control, e. g. for pull-off test at crimped terminals, connectors, components, etc.
- Easy to operate and space-saving testers.
- Load slide with precise linear motion, actuated by hand lever
- 4 types with different measuring ranges are available for selection of highest possible measuring accuracy for the respective application (0-50/100/250/500 N, each with 5000 Digits resolution); Accuracy class 0.25.
- 10000 Hz internal update rate for exact force readings
- Indication and operation of the measuring system via durable infrared sensor screen with dot matrix LCD-Display
- Set point capability
- Measured value memory and real time clock for protocol
- RS232C serial interface for data output
- Set-up menu for internal parameter setting and adjustment

Pull & Press Tester model PTH 50



PTH 50 with SG 80 and MK-8/A

- Tester for pull and press force tests
- Indication range 0 to 500 N
- Resolution 0.5 N
- Peak point and tracking mode.
- Load slide with precise linear motion, actuated by hand lever
- RS232C serial interface for output of measured values
- Set-up menu for internal parameter setting and adjustment
- Quick change tool mounting adapters for tool and test fixture assembly.

Test Benches models PTB and FTB for testing cable tie tighten pistols



FTB 50 with tool set KBP-MK7



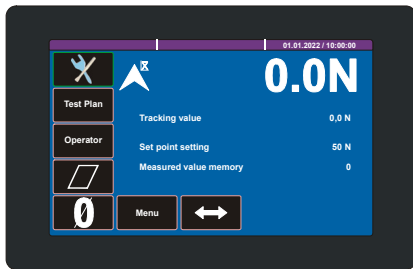
FTB 50 with SG 80 and KBP-MK7

- Small and handy Test Benches for testing the tension force of cable tie tighten pistols (tie rap guns)
- Quick change tool mounting adapters for assembly of different KBP fixtures for different models of cable tie pistols and for test fixtures for the cable tie head.
- Test benches can be positioned length- and crosswise to the operator because the force gauge can be fixed user-defined at both sides of the test bench's housing and in any orientation.
- Models series PTB 50 and FTB with various indication ranges up to max. 1000 N.
- High-precision force measuring system and
- High internal measuring rate of 10000 Hz as well as high resolution provide high accuracy and reproducibility and consistently captures even critical peak force readings.
- Peak point Mode and Tracking Mode.
- Easy to operate and space-saving test benches.
- The KBP fixtures for the cable tie pistols are available for almost all cable tie pistol models.
- The exact positioning and secure fixing of the cable tensioning tools on the test benches ensure precise measurements and user-independent reproducibility.

Testers operated by hand lever

Test Benches

High-precision Measuring System models FMS and CMS



FMS Force Gauges



Sensor
(example)

CMS Force Measuring System
with force-time graph

- Digital high-precision force measuring system for measurements of tensile and compressive forces.
- Force measuring system consisting of high-precision remote load cell with sensor interface CMS
- FMS (A/D converter and RS485 interface)
- CMS (A/D converter and USB interface) with CMS configuration and evaluation software for Tablet-Display, Netbook, Laptop or PC
- High measuring accuracy, resolution and repeatability.
- Easy operation.
- Rapid internal update rate consistently captures even critical force readings
- Load cells with different capacities (0.5 N to 50 kN) and designs can be used and operated alternately. After factory parameterization of the respective load cell, the FMS gauge and CMS software recognizes each load cell auto-matically.

Digital Force Gauge model DFG



DFG Force Gauge

- Digital force gauge with internal load cell for measurements of tensile and compressive forces.
- Small and handy unit for mobile use and stationary use with test stands.
- Ergonomic and rigid metal housing protects the accurate load cell and electronics when used in rugged environments.
- High measuring accuracy, resolution and repeatability.
- Simple and user-friendly operation.
- Easy handling: operation by 5 capacitive touch keys.
- Peak Point Mode (Peak & Auto Peak) and Tracking Mode.
- Ranges: 2/5/10/20/50/100/200/500/1000 N.
- Resolution: 10000 Digits
- Vertical test stands for use with DFG available.

Data recording and evaluation

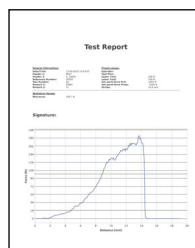
MI&T testers and test stations provide ports for the data output. Measured values can be send e. g. via a serial port to a suitable printer or transfer them to a PC. MI&T offers various hard and software solutions for the data acquisition and evaluation.

With the **MI&T KeyTest** measured values from measuring instruments and testers with serial port can be send via an USB port on the PC directly to word processing programs or statistics programs, e. g. MS Excel. With the MTM, ATM -A and FMS tester models, stored measurement series can be output as a test report in a PDF file via the USB interface using the optional firmware extension **PDF OUTPUT**.

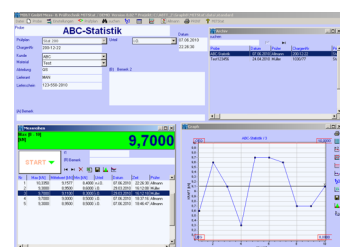
The **MI&Tstat** statistics software provides the data transfer between tester and PC via a serial port on the PC for the data logging, measured value acquisition and comprehensive statistical analyses.



MI&T KeyTest



PDF output via USB

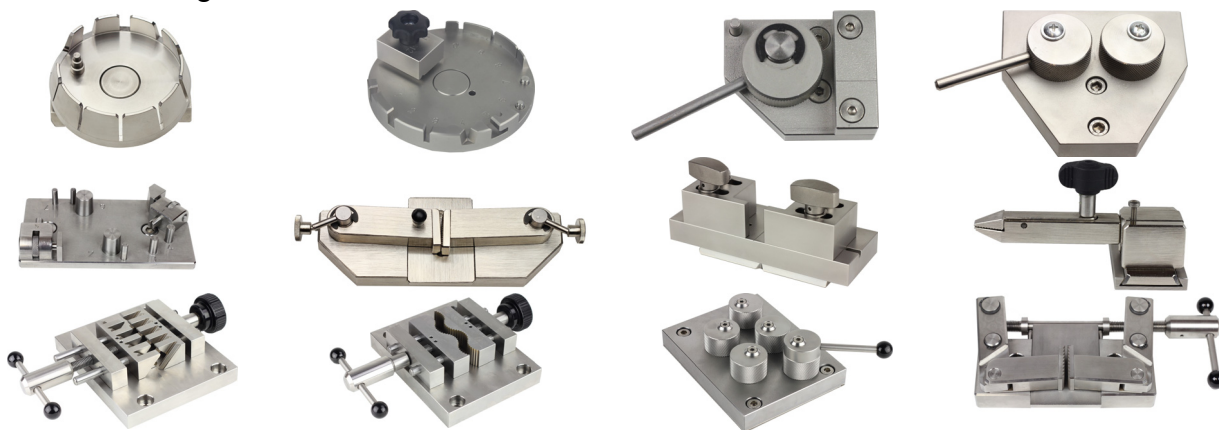


MI&Tstat

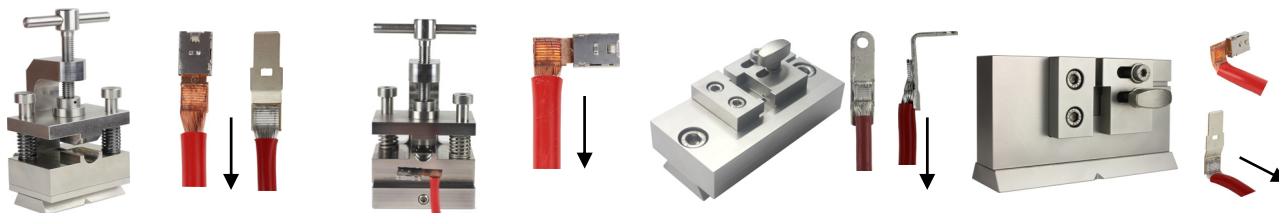
Clamping Tools and Test Fixtures

The **MI&T** offers a wide range of standard tools and test fixtures as well as especially designed special tools for customer-specific applications. Equipped with custom-designed testing tools and fixtures the **MI&T** testers and test stations can be used for manifold applications.

Standard Testing Tools and Fixtures



Special Tools and Fixtures e. g. for pull and peel tests of welded joints



Services

Competence for your measuring instruments and testers:

Calibration at regular intervals and faultless operating measuring instruments are the precondition for verifiable and reliable measuring data.

The qualified team of the **MI&T GmbH** offers a wide variety of services in the field of service, traceable calibration and repairs of measuring instruments and testers manufactured by our company, as well as for measuring instruments and testers of other manufacturers.

MI&T GmbH Measuring Instruments & Testers

Advanced Force Measurement

The **MI&T GmbH** is specialized in measuring and testing technologies in the field of force, force/stroke as well as strain measurements. We offer testers and test stations e. g. for tensile and peel tests of electrical wiring harnesses, tensile and compressive force measurements of test electronic components and assemblies, as well as for testing springs, plastic materials, medical products and packages, among many others. The **MI&T GmbH** stands for consequent innovations in the area of high-precision force measurement and industrial controls. We place particular emphasis on precision, easy operation and high reliability and particularly on competent advice and satisfaction of our customers and business partners.

The **MI&T GmbH** provides a comprehensive range of high-quality test stations, test systems and force measuring gauges for force, force/stroke as well as strain measurement. The versatile **MI&T** measuring instruments and testers in combination with application specific clamping tools and test fixtures provide flexible test systems for diverse test applications in quality control, research, development and production control. In addition **MI&T** offers customized special test systems as well as customized clamping tools and test fixtures adapted to the respective customer-specific application.



High-quality test equipment Made in Germany

Design, manufacturing & service of test equipment, control units, data transmission systems

Download of catalogue with detailed technical descriptions at www.MIT-Tester.de