For Tension Tests ≤ 500 N

Long clamp — **AC 17R**
for tension and rupture tests up to 500 N, clamping width: 3 mm, thread: M6
1 piece **AC 17**
2 pieces

Angle bracket — **AC 01R**
for tension and rupture tests up to 500 N (e.g. for cable tests), clamping width: 22 mm, thread: M6
1 piece **AC 01**
2 pieces

Fine point clamp — **AC 14R**
for tension and rupture tests up to 500 N, width 15 mm, clamping width: 4 mm, thread: M6
1 piece **AC 14**
2 pieces

Fine point clamp — **AC 22R**
for tension and rupture tests up to 500 N, width 22 mm, clamping width: 4 mm, thread: M6
1 piece **AC 22**
2 pieces

Screw tension clamp — **AD 9001**
for 100 N for laboratory tensile force measurements, incl. jaws with pyramid grip, clamping width: 4 mm, thread: M6
Further jaws on request
1 piece
PREMIUM ★★★

Screw tension clamp — **AD 9005**
for 400 N for laboratory tensile force measurements, incl. jaws with pyramid grip
1 with adapter structure for AD-system,
2 with M6 thread, clamping width: 8 mm
Further jaws on request
1 piece
PREMIUM ★★★

For Tension Tests ≤ 5000 N

Flat jaw attachment — **AC 03R**
for tension tests up to 5 kN (e.g. textile, paper etc.), clamping width: 4 mm, thread: M6
1 piece **AC 03**
2 pieces

Parallel jaw grip — **AC 12R**
for tension and rupture tests up to 5 kN, clamping width: 5 mm, thread: M10
1 piece **AC 12**
2 pieces

High capacity small clamp — **AC 16R***
for tension and rupture tests up to 5 kN, clamping width: 5 mm, thread: M10
1 piece **AC 16***
2 pieces

2 wide jaw grip attachment — **AC 18R**
for tension and extraction tests up to 5 kN, jaw width 60 mm, clamping width: 33 mm, thread: M10
1 piece **AC 18**
2 pieces

Rolling-clamp attachment — **AC 11R**
for tension and rupture tests up to 5 kN, thread: M10
1 piece

Eccentric roll clamp — **AC 41***
in particular for cable tests up to 5 kN, 10×30 mm slotted hole, clamping width: 9 mm
1 piece

Drum clamp — **AC 42***
typically for cable connector extraction tests up to 5 kN, for test objects with ⌀ from 1,5 mm up to 8 mm, thread: M10
1 piece

Wedge tension clamp — **AD 9080**
up to 5 kN, for tensile force tests, due to the wedge shape of the clamp the specimen is clamped automatically with increasing load, clamping width up to 10 mm, jaws with pyramid grip
1 piece
PREMIUM ★★★

Rope and thread tension clamp — **AD 9120**
up to 1 kN, Suitable for wires up to a diameter of 2 mm, belts up to 7 mm width, incl. jaws with rubberised surface
1 piece
PREMIUM ★★★

! *ONLY WHILE STOCKS LAST

For Tension Tests ≤ 5000 N

Rope and thread tension clamp **AD 9121**
up to 5 kN, for clamping belts, ropes, wires, etc.
Suitable for wires up to a diameter of 5 mm, belts up to 8 mm. Jaws with pyramid grip
1 piece
PREMIUM ★★★

Roller tension clamp **AD 9205**
up to 1 kN, can clamp on one side and eccentrically. Suitable for tensile force tests with belts or any other soft, flexible, flat material with a maximum sample thickness of 7 mm, incl. rollers with pyramid grip, the opposite clamping surface is smooth.
Suitable for test objects up to 50 mm width
1 piece
PREMIUM ★★★

Roller tension clamp **AD 9207**
up to 5 kN, can clamp on one side and eccentrically. Suitable for tensile force tests with belts or any other soft, flexible, flat material with a maximum sample thickness of 7 mm, incl. rollers with pyramid grip, the opposite clamping surface is smooth.
Suitable for test objects up to 50 mm width
1 piece
PREMIUM ★★★

For Tension Tests > 5000 N

Belt tension clamp **AD 9250**
up to 10 kN, open at one end, suitable for tensile force tests with belts or any other soft, flexible, flat materials with a maximum sample thickness of 2,5 mm a test object width up to 22 mm
1 piece
PREMIUM ★★★

Belt tension clamp **AD 9255**
up to 20 kN, suitable for tensile force tests with belts or any other soft, flexible, flat materials with a maximum sample thickness of 2,5 mm a test object width up to 80 mm
1 piece
PREMIUM ★★★

Wedge tension clamp **AD 9090**
up to 10kN, for tensile force tests, due to the wedge shape of the clamp the specimen is clamped automatically with increasing load, clamping width up to 10 mm, incl. jaws with pyramid grip
Further jaws on request
1 piece
PREMIUM ★★★

Wedge tension clamp **AD 9095**
up to 20kN, for tensile force tests, due to the wedge shape of the clamp the specimen is clamped automatically with increasing load, clamping width up to 13 mm, incl. jaws with pyramid grip
Further jaws on request
1 piece
PREMIUM ★★★

Wedge tension clamp **AD 9096**
up to 50kN, for tensile force tests, due to the wedge shape of the clamp the specimen is clamped automatically with increasing load, clamping width up to 13 mm, incl. jaws with pyramid grip
Further jaws on request
1 piece
PREMIUM ★★★

Tip

Have you not found the right fastener? We are happy to manufacture individual fastening options according to your specifications, for all details see page 24

For Compression Tests > 500 N

Concave force sensor — **AC 45**
with optimised radius for the measurement particularly of arms and legs up to 1 kN, inner thread: M6
1 piece

Flat square-shaped sensor — **AC 46**
for lateral power sensing of back, chest or arm up to 1 kN, inner thread: M6
1 piece

Round sensor — **AC 47**
to measure particular muscle groups, such as, for example, the shoulder up to 1 kN, inner thread: M6
1 piece

Pressure disc — **AFH 06**
out of aluminium, thickness 10 mm, for compression tests up to 5 kN, diam. 110 mm, outer thread: M12
1 piece

Pressure disc — **AC 08R***
for compression tests up to 5 kN (e.g. plastics), ⌀ 49 mm, inner thread: M10
1 piece
AC 08*
2 pieces

Ball-shaped head made of nickel-plated steel — **AC 02**
for compression and fracture tests up to 5 kN, (e.g. foam, glass), thread: M6/M10
Ball radius: 5mm/8mm
1 piece each

Small 3-point bending device (steel) — **AD 9300**
up to 10 kN, central scale 80-0-80 mm. Consisting of one support beam, two support brackets and a curved fin each with permanently fixed radii, radii on request. Gap between the two support brackets 4–170 mm. Width of the brackets 30 mm
1 piece

For Tension and Compression Tests

Threaded adapters — **AFM 14**
made of steel for SAUTER force measuring devices, clamps and test stands, external thread 1: M6 external thread 2: M12
1 piece

Threaded adapters — **AFM 05**
made of steel, for SAUTER force gauges, clamps and test stands, external thread: M10 internal thread: M6
1 piece

Threaded adapters — **AFM 16**
made of steel, for SAUTER force gauges, clamps and test stands, external thread: M12 internal thread: M10
1 piece

Threaded adapters — **AFM 22**
made of steel for SAUTER force gauges and clamps, external thread: M6 internal thread: M8
1 piece

Threaded adapters — **AFM 07**
made of steel, for SAUTER force gauges, clamps and test stands, external thread: M10 internal thread: M6
1 piece

Grub screw — **AFM 20**
made of steel for SAUTER clamps and test stands, external thread: M6
1 piece

Threaded adapters — **AFM 23**
made of steel, for SAUTER force gauges, clamps and test stands, external thread: M10 internal thread: M8
1 piece

Numerous more adapters on request.

*ONLY WHILE STOCKS LAST

For Tension Tests ≤ 500 N

Standard small clamp — AE 01

Opening width (inside the jaws): 0-7 mm, for tensile tests up to 500 N, thread M6. Overload protection: 150 % of [Max]. Easy handling without tools, the opening and closing of the jaws can be made with the rotary knob on the upper side. Presetting of the jaw opening via attached screws. Pretension due to built-in springs

1 piece

PREMIUM ★★★

Wide jaw clamp — AE 02

Opening width (inside the jaws): 0–6 mm, for tensile tests up to 500 N, thread M6. Overload protection: 150 % of [Max]. Easy handling without tools, the opening and closing of the jaws can be made with the rotary knobs on the upper side

1 piece

PREMIUM ★★★

Belt tension clamps — AE 03

Opening width (inside the jaws): 0–4 mm, for tensile tests up to 500 N, thread M6. Overload protection: 150 % of [Max]. Easy handling without tools, the opening and closing of the jaws can be made with the lever on the upper side

1 piece

PREMIUM ★★★

Belt tension clamps — AE 04

Opening width (inside the jaws): 0–6 mm, for tensile tests up to 500 N, thread M6. Overload protection: 150 % of [Max]. Easy handling without tools, the opening and closing of the jaws can be made with the lever on the upper side

1 piece

PREMIUM ★★★

Rope and thread tension clamps — AE 05

Opening width (inside the jaws): 0–5 mm, for tensile tests up to 500 N, thread M6. Overload protection: 150 % of [Max]. Easy handling without tools, test item can simply be wrapped around the screw and fastened via the clamping screw

1 piece

PREMIUM ★★★

For Tension Tests ≤ 500 N

Cable removal clamp — AE 06

Opening width (inside the jaws): 1,5–6 mm, for tensile tests up to 500 N, thread M6. Overload protection: 150 % of [Max]. Easy handling without tools, test item can simply be inserted into the appropriate recess and be tested

1 piece

PREMIUM ★★★

Wedge tension clamp — AE 07

Opening width (inside the jaws): 0–6 mm, for tensile tests up to 500 N, thread M6. Overload protection: 150 % of [Max]. Easy handling without tools, test item can simply be inserted into the open clamp. It closes automatically during a tensile test

1 piece

PREMIUM ★★★

For Compression Tests ≤ 5000 N

Stainless steel pressure disc — AE 08

For compression tests up to 5 kN, ø 47 mm, internal thread M6, foam rubber attachment for sensitive surfaces included in scope of delivery

1 piece

PREMIUM ★★★

Attachments

Standard attachments kit — **AC 43**
for all force gauges FA, FH, FL, FC and FS, thread: M6
10–500 N
6 items

Standard attachments kit — **AC 430**
for force gauge FK, thread: M8
10–1000 N
6 items

Tensiometer attachment — **FK-A01**
optional for all FK models from FK 10 up to FK 250
1 piece

Tensiometer attachment — **FK-A02**
for high-capacity tensile strength tests up for FK 500 and FK 1K
1 piece

Special Solutions

Stainless steel handle bar — **AFH 04**
with rubber grip for safe handling,
AFH 04 suitable for FA, FH, FL — 1 piece
AFK 02 suitable for FK, FC and FS — **AFK 02** — 1 piece

Stainless steel handle bar — **AFH 05**
with rubber grip for FH, FL with external sensor, thread: M12
1 piece

Door tester — **AFH 03**
Handle (length: 300 mm) and two round force receptor plates (ø 85 mm) as an option to FH 1K up to FH 5K for the safe testing of clamping forces (not approved to DIN 18650 or similar), up to 5 kN
1 piece

Interface Cables

RS-232/PC connection cable — **FH-A01**
to connect models from the SAUTER FH range to a PC
1 piece

RS-232/PC connection cable — **FL-A04**
to connect models from the SAUTER FL, DA and DB range to a PC
1 piece

USB/PC connection cable — **FL-A01**
to connect models from the SAUTER FL, DA and DB range to a PC
1 piece

RS-232/PC connection cable — **LB-A01**
to connect models from the SAUTER LB range to a PC
1 piece

RS-232/USB adapter — **AFH 12**
to connect peripherical devices with USB interface, suitable for all balances and measuring instruments with RS 232 output, scope of supply: adapter, CD with driver
1 piece

RS-232 connection cable — **FC-A01**
to connect models from the SAUTER FC range to a PC
1 piece

Adjusting program (CAL)
For quick setting of the instrument's accuracy. External adjusting weight required

Calibration block
Standard for adjusting or correcting the measuring device

Peak hold function
Capturing a peak value within a measuring process

Scan mode
Continuous capture and display of measurements

Push and Pull
The measuring device can capture tension and compression forces

Length measurement
Captures the geometric dimensions of a test object or the movement during a test process

Focus function
Increases the measuring accuracy of a device within a defined measuring range

Internal memory
To save measurements in the device memory

Data interface RS-232
Bidirectional, for connection of printer and PC

Profibus
For transmitting data, e.g. between scales, measuring cells, controllers and peripheral devices over long distances. Suitable for safe, fast, fault-tolerant data transmission. Less susceptible to magnetic interference

Profinet
Enables efficient data exchange between decentralised peripheral devices (balances, measuring cells, measuring instruments etc.) and a control unit (controller). Especially advantageous when exchanging complex measured values, device, diagnostic and process information. Savings potential through shorter commissioning times and device integration possible

Data interface USB
To connect the measuring instrument to a printer, PC or other peripheral devices

Bluetooth* data interface
To transfer data from the balance/measuring instrument to a printer, PC or other peripherals

WIFI data interface
To transfer data from the balance/measuring instrument to a printer, PC or other peripherals

Data interface infrared
To transfer data from the measuring instrument to a printer, PC or other peripheral devices

Control outputs (optocoupler, digital I/O)
To connect relays, signal lamps, valves, etc.

Analogue interface
To connect a suitable peripheral device for analogue processing of the measurements

Analogue output
For output of an electrical signal depending on the load (e.g. voltage 0 V – 10 V or current 4 mA – 20 mA)

Statistics
Using the saved values, the device calculates statistical data, such as average value, standard deviation etc.

PC Software
To transfer the measurement data from the device to a PC

Printer
A printer can be connected to the device to print out the measurement data

Network interface
For connecting the scale/measuring instrument to an Ethernet network

KERN Communication Protocol (KCP)
It is a standardized interface command set for KERN balances and other instruments, which allows retrieving and controlling all relevant parameters and functions of the device. KERN devices featuring KCP are thus easily integrated with computers, industrial controllers and other digital systems

GLP/ISO record keeping
of measurement data with date, time and serial number. Only with SAUTER printers

Measuring units
Weighing units can be switched to e.g. non-metric. Please refer to website for more details

Measuring with tolerance range (limit-setting function)
Upper and lower limiting can be programmed individually. The process is supported by an audible or visual signal, see the relevant model

Protection against dust and water splashes IPxx
The type of protection is shown in the pictogram cf. DIN EN 60529:2000-09, IEC 60529:1989 +A1:1999+A2:2013

ZERO
Resets the display to "0"

Battery operation
Ready for battery operation. The battery type is specified for each device

Rechargeable battery pack
Rechargeable set

Plug-in power supply
230V/50Hz in standard version for EU. On request GB, AUS or US version available

Integrated power supply unit
Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or US on request

Motorised drive
The mechanical movement is carried out by a electric motor

Motorised drive
The mechanical movement is carried out by a synchronous motor (stepper)

Fast-Move
The total length of travel can be covered by a single lever movement

Conformity assessment
Models with type approval for construction of verifiable systems

DAkkS calibration possible
The time required for DAkkS calibration is shown in days in the pictogram

Factory calibration (ISO)
The time required for factory calibration is specified in the pictogram

Package shipment
The time required for internal shipping preparations is shown in days in the pictogram

Pallet shipment
The time required for internal shipping preparations is shown in days in the pictogram