

SELF-TIGHTENING AND SELF-ALIGNMENT GRIPS “SCISSOR AND Pincer TYPES” TENSILE TEST










Serie MAT Scissor type Grips – MTP Pincer type – MMP Miniature Pincer type

Easy-to-use self-tightening and self-aligning scissor-type grips applicable to perform **tensile tests** on samples and specimens of soft and flexible materials, **rubber, plastics, fabrics...**,

Very light **grips pincer** type, easy to use and applicable to perform **extraction tests** on elements that are difficult to access, electronic components, or tensile tests on very small specimens, being incorporated into a Universal Testing Machine.

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Scissor type Grips MAT-2 of 2 kN capacity

Easy-to-use self-tightening and self-aligning scissor-type grips applicable to perform **tensile tests** on samples and specimens of soft and flexible materials, **rubber, plastics, fabrics ...**, being incorporated in a universal testing machine.

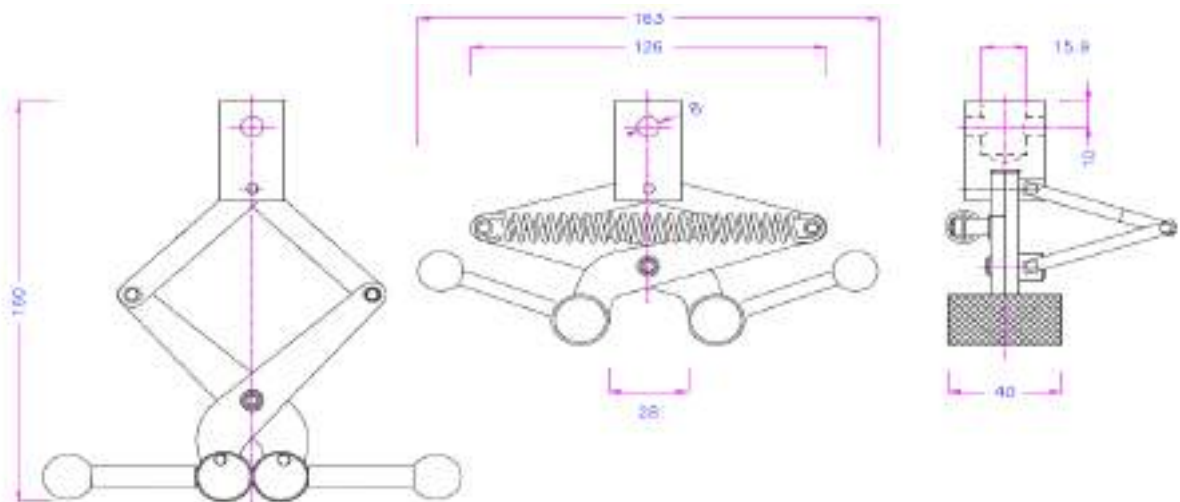
GENERAL INFORMATION

Easy-to-use self-tightening and symmetrical design grips, designed for tensile testing of light elastic materials, such as rubber, silicones, plastics, fabrics ... with low resistance. The initial clamp of the sample is provided by the action of the spring. The ratio of the closing force of the grips to the pulling force changes according to the opening of the jaws. The greatest clamping force on the specimen is obtained with the greatest opening due to the effect of the spring. The jaws apply self-tightening on the specimen that is tested throughout the pulling process.

Scissor-style pull grips are used on benchtop material testing machines.



| Model | MAT-2 |
|--------------------------------|--|
| Applicable for: | Elastic and soft samples, such as Textiles, Rubbers, Plastics ... |
| Maximum load: | 2 kN |
| Jaw opening: | Ø - 28 mm |
| Jaws: | Knurled rounds (serrated) Ø 20 mm made of 58 HRC hardened steel, nickel plated |
| Specimen width max ∴ | 40 mm |
| Body grip: | Steel, manganese phosphate coated |
| Temperature range: | Ø a +130°C Other possible temperature ranges |



Order information

The MAT-2 grips are supplied in sets of 2 units (1 pair), but can also be supplied separately. Jaws with pyramidal cut are included in the standard supply.

Scissor-type grips MAT-5 of 5 kN capacity

| Modelo | MAT-5 |
|------------------------------|---|
| Applicable for: | Elastic and soft samples, such as Textiles, Rubbers, Plastics ... |
| Máximum load: | 5 kN |
| Jaw opening: | O - 19 mm |
| Specimen width max .: | 50 mm |
| Body grip: | Stainless Steel |
| Temperature range: | -70 a +130°C Other possible temperature ranges |
| Weight: | 980 g each grip (without jaws) |



MAT-5 with MAT-5-BP jaws

Jaws for Grips MAT-5

| Model | Surface Finish | Clamping surface (width x height) | WEIGHT per pair |
|-----------------|--------------------------|------------------------------------|-----------------|
| MAT-5-B | Blank Jaws | 20 x 50 mm | 240 g |
| MAT-5-BP | Serrated Jaws (pyramids) | 20 x 50 mm | 240 g |

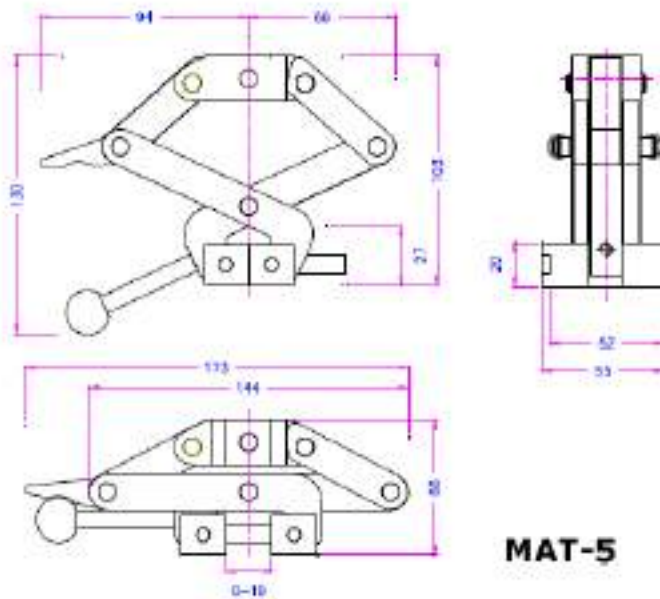


Other surfaces on request



B – BLANK Jaws
 - Suitable for other treatments
 - Plain uncoated steel

BP – KNURLED JAWS (Multipurpose)
 - 1.2x45° pyramid knurled jaws
 - Hardened steel 58 HRC, Nickel plated



MAT-5



Order information

The MAT-5 grips are supplied in sets of 2 units (1 pair), but can also be supplied separately. The jaws are not included in the standard supply.

Scissor type grips MAT-20 of 20 kN capacity

| Model | MAT-20 |
|------------------------------|---|
| Máximum load: | 20 kN |
| Jaw opening: | Blank jaws O - 25 mm Round jaws O - 20 mm V-shaped jaws round specimens 4 - 16 mm Ø |
| Specimen width max .: | 50 mm y 100 mm |
| Body grip: | Stainless Steel |
| Temperature range: | -70 a +130°C Other possible temperature ranges |
| Weight: | 2 Kg each grip (without jaws) |



Jaws for Grips MAT-20

| Model | Surface Finish | Clamping surface (width x height) | WEIGHT per pair |
|-----------------------|--------------------|------------------------------------|-----------------|
| MAT-20 | Blank Jaws | 20 x 50 mm | 0,34 Kg |
| MAT-20-BP | Knurled Flat Jaws | 20 x 50 mm | 0,33 Kg |
| MAT-20-BPR* | Knurled Round Jaws | Ø 25 mm x 52 mm | 0,31 Kg |
| MAT-20-BV4 | V-shaped jaws | Samples of 4-15 mm Ø | 0,45 Kg |
| MAT-20-BW | Wave Jaws | 25 x 50 | 0,32 Kg |
| MAT-20-B100** | Blank Jaws | 25 x 100 mm | 0,74 Kg |
| MAT-20-BP100** | Knurled Flat Jaws | 5 x 100 mm | 0,72 Kg |
| MAT-20-BW100** | Wave Jaws | 5 x 100 mm | 0,69 Kg |

Other surfaces on request

* Round jaws are suitable for Dumbbell specimens (bone shape)

** 100 mm wide jaws traction force is reduced to 10 kN



B – BLANK Jaws

- Suitable for other treatments
- Plain uncoated steel



BP – KNURLED Jaws (Multipurpose)

- 1.2x45° pyramid knurled jaws
- Hardened steel 58 HRC, Nickel plated



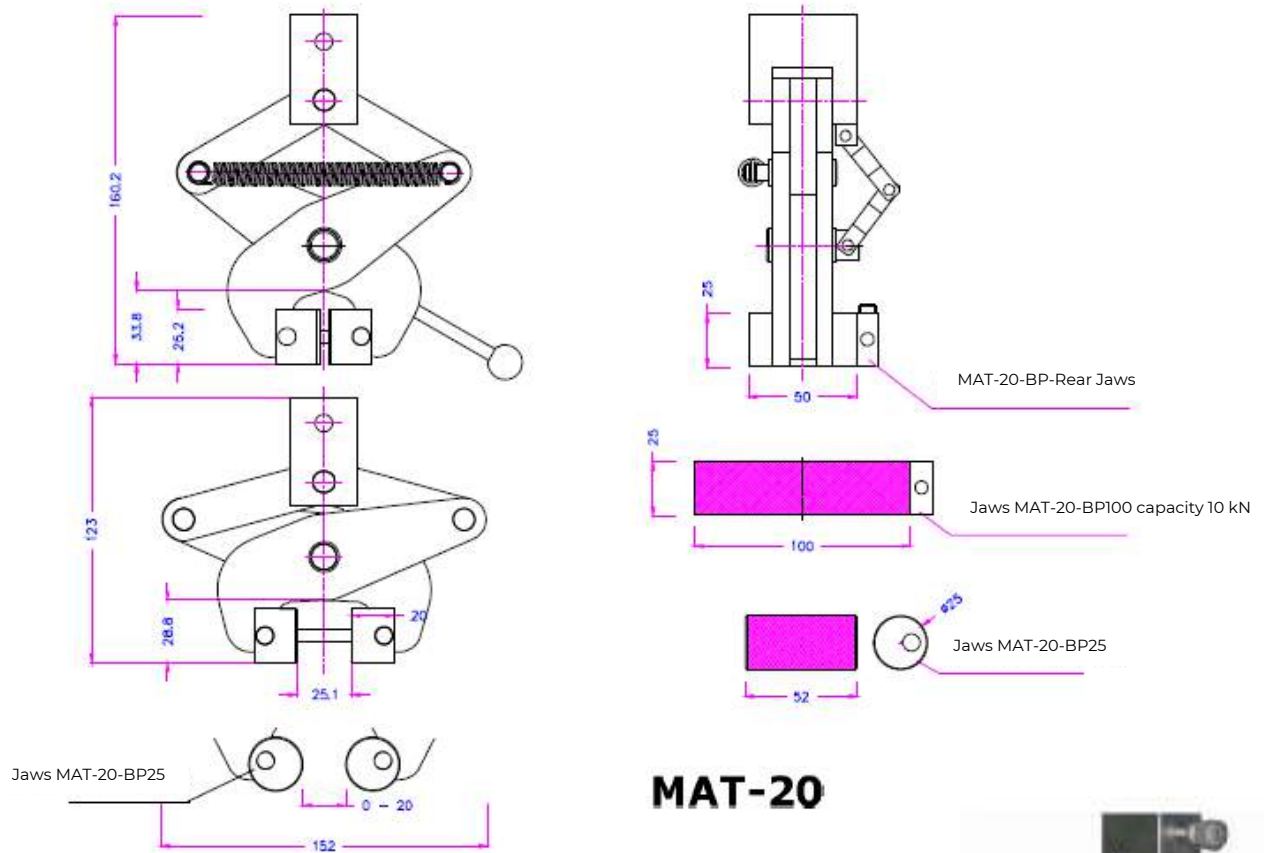
BV - V-jaws for all types of round samples

- Tooth pitch 1.2 mm
- Hardened steel 58 HRC, nickel plated



BW – WAVE Jaws for Textiles

- 5mm waves
- Hardened steel 58 HRC, Nickel plated



MAT-20



MAT-20 with MAT-20-BR jaws

Order information

The MAT-20 grips are supplied in sets of 2 units (1 pair), but can also be supplied separately. The jaws are not included in the standard supply.

Scissor grips MAT-50 of 50 kN capacity

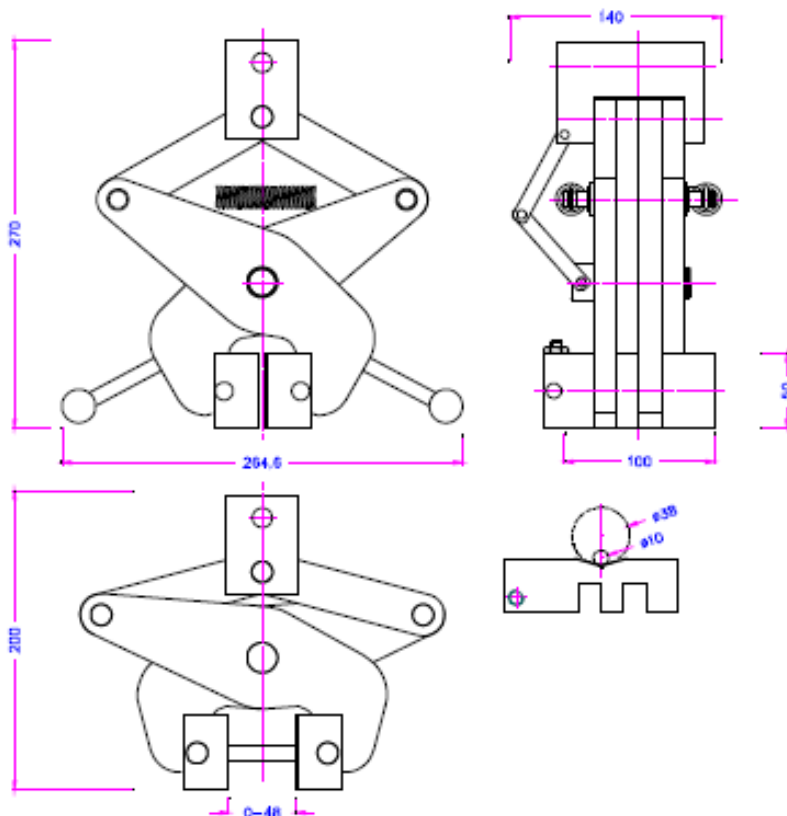
With locking function (interlock): The jaw locks in the open position

| | |
|------------------------------|--|
| Model | MAT-50 |
| Máximum load: | 50 kN |
| Jaw opening: | Blank Jaws of \varnothing -48 mm V jaws round specimen 10-48 mm \varnothing |
| Specimen width max .: | 100 mm |
| Body grip: | Steel, manganese phosphate coated |
| Temperature range: | 0 a +130°C Other possible temperature ranges |
| Weight: | 9,1 Kg each grip (no jaws) |



Jaws for Grips MAT-50

| Model | Surface Finish | Clamping surface (width x height) | WEIGHT per pair |
|--------------------|----------------|------------------------------------|-----------------|
| MAT-50-BP | Knurled Jaws | 50 x 100 mm | 1,9 Kg |
| MAT-50-BV10 | Jaws in V | Specimen of 10-48 mm \varnothing | 2 Kg |



MAT-50 with MAT-50-BP jaws

Order information

The **MAT-50** grips are supplied in sets of 2 units (1 pair), but can also be supplied separately. Las mandíbulas no están incluidas en el suministro estándar.

Jaws available:



Manual Pincer type Grip model MTP/20-F (20 N)

Closing action spring (with direct adapter)

Manual Pincer type Grip model MTP/20-K (20 N)

Closing action spring (with chain + adapter)

Miniature Pincer type Grip very light in weight, easy to use and suitable for **small forces**, pulling tests, component tear tests, adhesive joints, plastic welding (paper, plastics, rubber) etc, being incorporated into a Universal Machine of Essays.



GENERAL INFORMATION

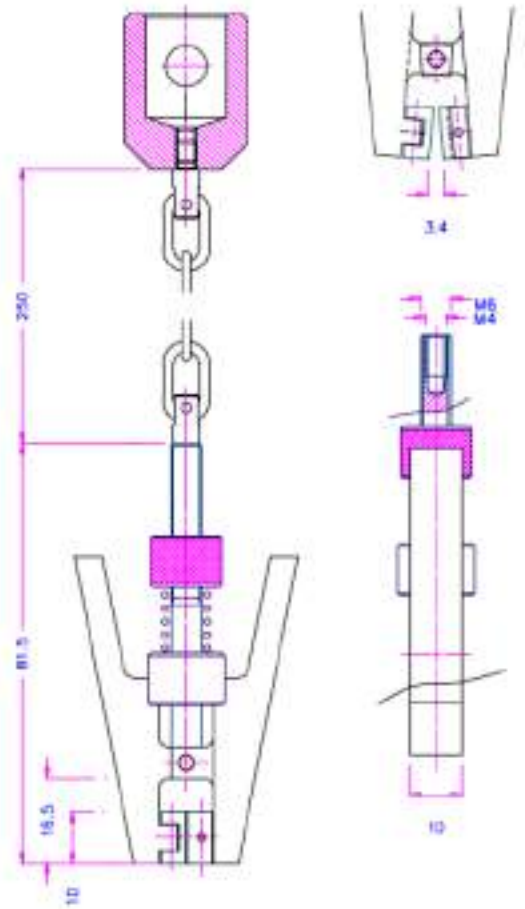
Small pincer type grip spring forced closing force, versatile, easy to use. Suitable for small forces, pull tests, component tear tests, adhesive joints, welding of plastics (paper, plastics, rubber) etc. End mounted chain for flexible positioning in testing.

MTP/20-K: Standard **with** chain+adapter

MTP/20-F: **Without** chain + adapter (the adapter is mounted directly on the collet type grip).

| MODEL | MTP/20 |
|-----------------------------|--|
| • Maximum load: | 20 N |
| • Opening: | 0-3,4 mm |
| • Body: | Aluminium, anodized |
| • Temperature range: | 0... + 70 ° C Other ranges on request |
| • Clamping area: | 10 x 10 mm |
| • Weight per grip: | 98 g |
| • Scope of supply: | 1 Grip (Without jaws) |

* Jaws must be ordered separately



MTP/20-K

MTP/20-F



MTP/20-f-BP20x20



MTP/20-BP20x20 - 20x20mm knurled jaws



Jaws for MTP/20, 1 set = 2 Jaws

| Model | Surface finish: | clamping area (Al x An): |
|----------------|----------------------------------|--------------------------|
| MTP/20-B | Blank Jaws | 10x10 mm |
| MTP/20-BP | Serrated Jaws (Pyramids 0.3x45°) | 10x10 mm |
| MTP/20-BP15x15 | Serrated Jaws (Pyramids 0.3x45°) | 15x15 mm |
| MTP/20-B20x20 | Blank Jaws | 20x20 mm |
| MTP/20-BP20x20 | Serrated Jaws (Pyramids 0.3x45°) | 20x20 mm |

Other surfaces and jaw sizes on request

similar jaws:



MTP/100-6-K-MB



MCL



MPN/2



MMP/2

Manual Pincer type Grips MTP/100 series (100 N)

Lateral closing screw

Pincer-type grip very light in weight, easy to use and suitable for **small forces**, pulling tests, component tear tests, adhesive joints, plastic welding (paper, plastics, rubber) etc, being incorporated into a Universal Testing Machine.

GENERAL INFORMATION

Versatile, easy to use. Applicable for small components, for example electronic components, etc. Chain mounting allows for more flexible positioning. The MTP/100-F type: The adapter is directly mounted on the clamp (no chain). The clamping surfaces are minced on both sides (pyramidal).

Model MTP/100-6-K with chain and adapter (jaws of 5x6 mm)

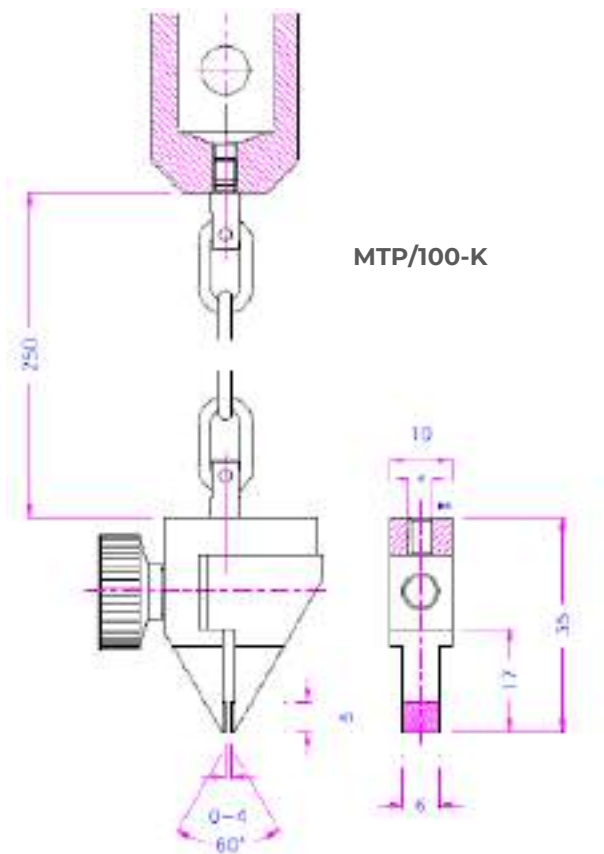
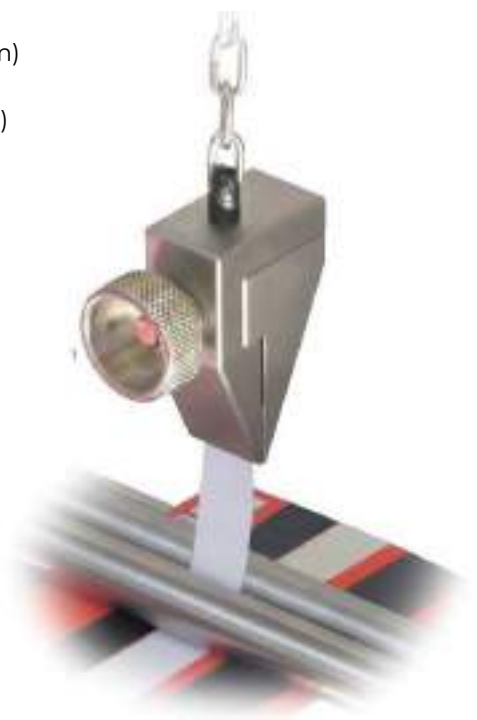
Model MTP/100-6-F without chain and adapter (jaws of 5x6 mm)

Model MTP/100-10-K with chain and adapter (jaws of 5x10 mm)

Model MTP/100-10-F without chain and adapter (jaws of 5x10 mm)

Model MTP/100-15-K with chain and adapter (jaws of 10x15 mm)

Model MTP/100-15-F without chain and adapter (jaws of 5x6 mm)



MTP/100-F
(with direct adapter)

| | |
|---------------------------------------|---|
| Models | MTP/100-X-F MTO/100-X-K X (wide jaws) = 6, 10, 15 mm |
| Maximum load: | 100 N |
| Opening Jaws: | 0 – 4 mm |
| Coupling: | 15,9 or 20 mm Other couplings on request |
| Clamping area (height x width) | 5 x 6 mm for MTP/100-6-F and MTP/100-6-K 5x10 mm for MTP/100-10-F and MTP/100-10-K 10x15 mm for MTP/100-15-F and MTP/100-15-K |
| surface finish: | Jaws Chopped Pyramids (serrated), 0.6x45° |
| Body grip: | Hardened steel, nickel plated |
| Adapter: | Aluminium, anodized |
| Chain: | Overall length 150mm; chain link: Ø1.9, length 16.6 mm V4A stainless steel |
| Temperature range: | 0 ... +70°C. Otros rangos de temperatura bajo pedido |
| Scope of supply: | 1 Grip including adapter (MTP/100-F) 1 Grip including adapter and chain (MTP/100-K) |

| Model | Weight: |
|---------------------|---------------------------------|
| MTP/100-6-F | 76 g with adapter of 15,9 mm Ø |
| MTP/100-6-K | 90 g with adapter of 15,9 mm Ø |
| MTP/100-10-F | 80 g with adapter of 15,9 mm Ø |
| MTP/100-10-K | 94 g with adapter of 15,9 mm Ø |
| MTP/100-15-F | 111 g with adapter of 15,9 mm Ø |
| MTP/100-15-K | 125 g with adapter of 15,9 mm Ø |



MTP/100-6-F
K



MTP/100-10-F



MTP/100-15-F

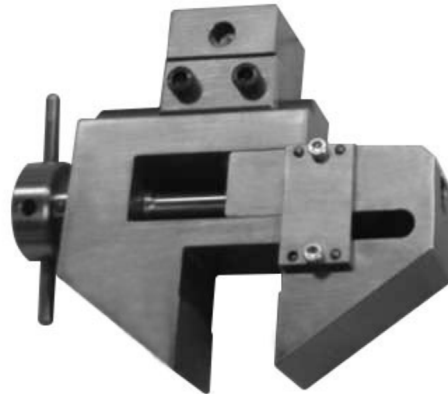


MTP/100-6-K

Custom special grips:



MTP/100-25-F-BG
Jaw width 25 mm
rubber coated



MTP/100-32x20

- Larger modification with adjustable adapter to align, center line to accommodate various size samples
- Jaw opening 0-32mm
- Serrotes clamping surface 32x20 mm (width x height)



SPECIAL VERSION WITH GUIDE
Temperature Range +150°C Specially designed for mechanical dynamic tests inside a thermal test chamber

Similar Grips:



MTP/20



MCL



MPN/2



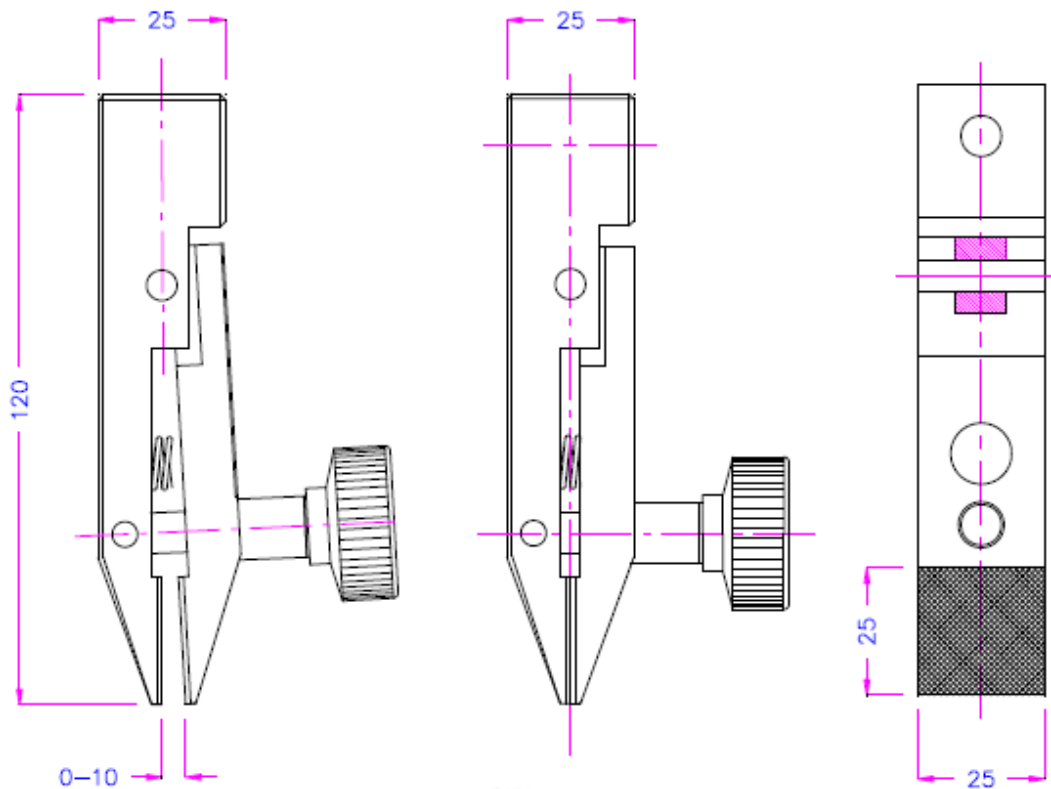
MMP/2

Miniature Manual Pincer Grip model MMP/2 (2kN)

Miniature grip-type pincer, very light in weight, easy to use and applicable to perform extraction tests on elements that are difficult to access, electronic components, or traction tests on very small specimens, being incorporated into a Universal Testing Machine.



| | |
|---------------------------------|--|
| • Maximum load: | 2 kN |
| • Opening: | 0-10mm |
| • Body: | Hardened steel |
| • Temperature range: | 0... + 70 °C Other ranges on request |
| • Clamping area: | 25 x 25 mm |
| • Pneumatic connection : | 1/8" internal thread |
| • Weight per grip: | 452 g |
| • Scope of supply: | 1 Grip (with knurled jaws - pyramids, 1.2 x 45°) |



finished jaw knurled Included in the supply of the grip MMP/2

The MMP/2 grip can be used in combination with the following test fixtures as an upper grip:



Dpb/90° Take off / Peel at 90°



Take off / Peeled

similar grips:



MTP/100-6-K-MB



MCL



MTP/20



MMP/2

Recommended Testing Machines:



MTE-1 (to 1 kN)



MTE-5 (to 5 kN)



MTE-25 (to 25 kN)



MTE-50 (to 50 kN)