

## HYDRAULIC GRIPS FOR TENSILE TEST



**Hydraulic Side Action Grips - Model MHL/30 (30 kN)**

**Hydraulic Side Action Grips - Model MHL/90 (90 kN)**

**Hydraulic Side Action Grips - Model MHL/100 (100 kN)**

**Hydraulic Wedge Grips - Model MHC/250 (250 kN)**

**Hydraulic Wedge Grips MHC series (400-1500 kN)**

**Hydraulic/Pneumatic Wedge Grips MC/HT series (10-250 kN) "High Temperature"**

Hydraulic action grips, easy to use and applicable to perform **tensile tests** on samples of materials such as Metals and Alloys, Aluminum, Fabrics, Textiles, Composites..., being incorporated into a Universal Testing Machine.

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## Hydraulic Side Action Grips Model MHL/30 (30 kN) Simple actuator

## Hydraulic Side Action Grips Model MHL/30-2Ko (30 kN) Double actuator

Hydraulic clamping grips, with **single or double symmetrical actuator**.

If it is simple with one side manually adjustable by means of a head screw. These jaws are suitable to be able to align displaced samples in shear tests or asymmetric samples. easy to use and applicable to perform **tensile tests** on samples of sheet materials such as Dumbbell type Plastic, Metal Sheets, Aluminum Sheets, Fabrics, Cloth, Textiles, Composites ..., being incorporated into a Universal Testing Machine



### GENERAL INFORMATION

Easy-to-use hydraulic grips, designed for tensile testing of sheet materials with medium resistance to breakage up to **30 kN**.

#### Hydraulic grips with single actuator model MHL / 30

Universal type grips with **simple hydraulic actuator** with one side manually adjustable by means of a butterfly head screw. These grips are suitable to be able to align displaced samples in shear tests or in asymmetric samples.

#### Hydraulic grips with double actuator model MHL / 30-2Ko

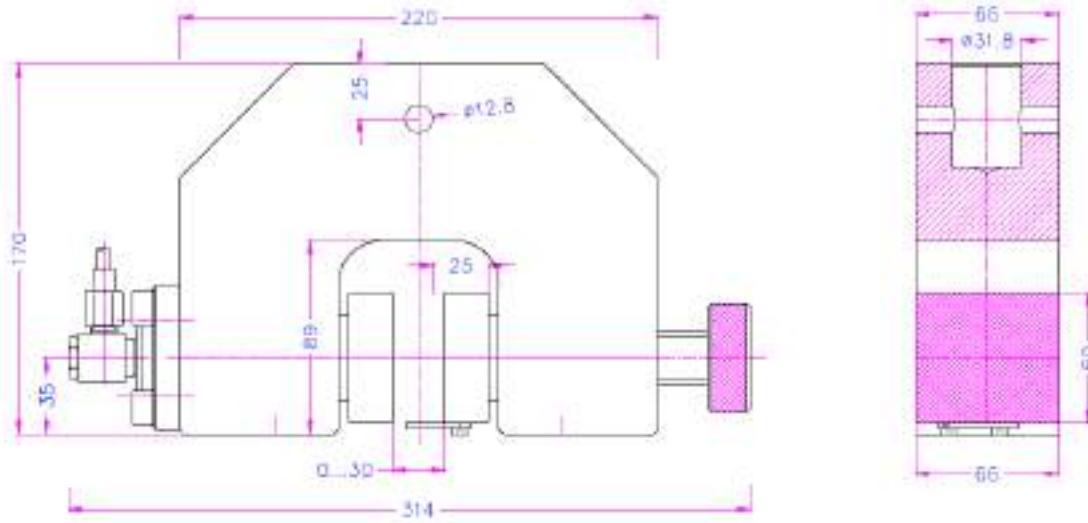
In this **double hydraulic actuator** model, the centering of the specimens is symmetrical.

Ideal for all kinds of samples of flat materials, Rubber, Plastic Dumbbell, Metallic Foils, Aluminum Foils, Fabrics, Cloth, Textiles, Composites ...

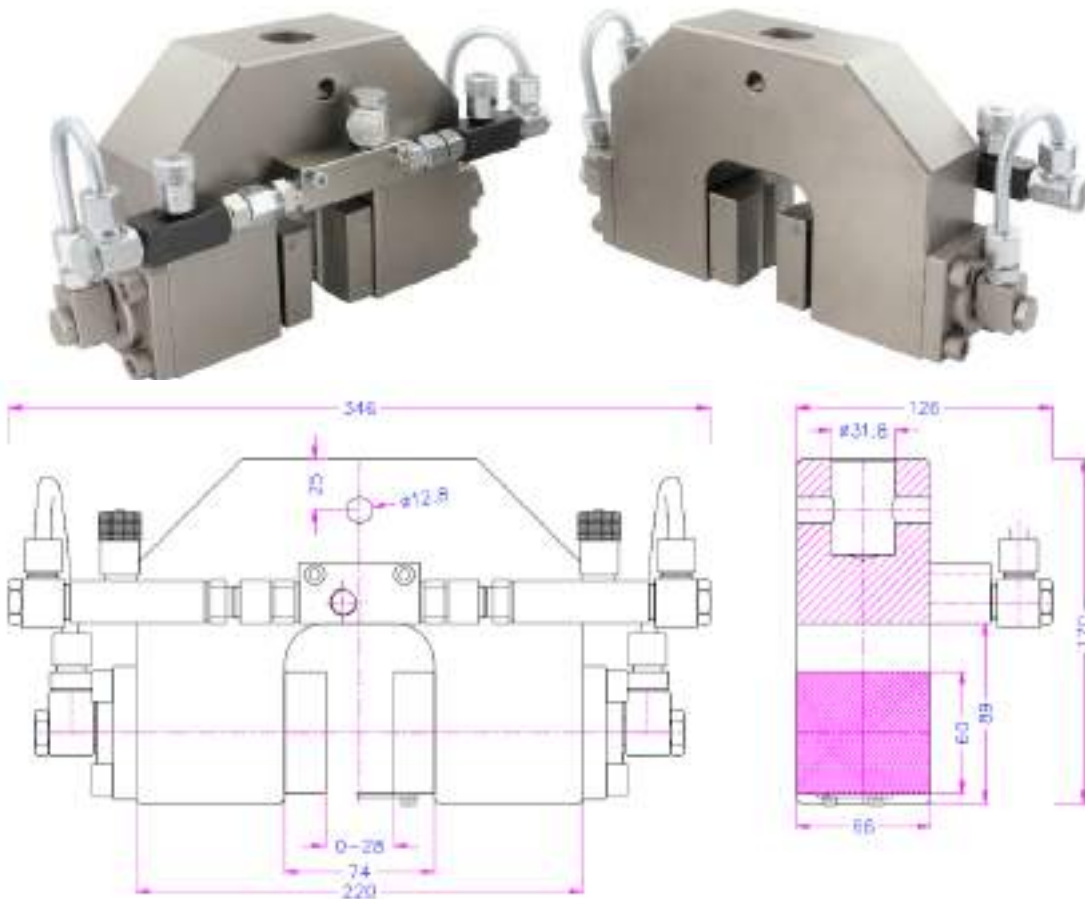
- Hydraulic seals can be used from -30 ° C to + 100 ° C (NBR sealing material): article MHL / 30-T100
- In special cases we can supply -10 ° C to + 200 ° C (FKM PTFE Bronze sealing material): item MHL / 30-T200
- For negative values we recommend using a nickel surface: article MHL / 30-Ni

### TECHNICAL CHARACTERISTICS COMMON TO THE 2 MODELS

• <b>Load capacity:</b>	<b>30 kN</b> a 315 Bar
• <b>Clamping force:</b>	<b>60 kN</b> a 315 Bar
• <b>Coupling:</b>	31,8 or 60 mm (Other couplings on request)
• <b>Single acting cylinder:</b>	50 mm Ø with return spring (max travel 15 mm)
• <b>Hydraulic connection:</b>	1/4"
• <b>Body:</b>	Nickel plated steel
• <b>Jaws:</b>	Nickel Plated Hardened Steel
• <b>Temperature range:</b>	0.. + 70 ° C (depending on jaw type) Other ranges on request
• <b>Weight of each jaw:</b>	15 Kg (without jaws) Model MHL / 60
• <b>Scope of delivery:</b>	1 pair of Grips (without jaws)



**HYDRAULIC GRIPS WITH DOUBLE ACTUATOR MODEL MHL / 30-2K0**



Different types of jaw finishes for the MHL / 30 - MHL / 30-Ko jaws:  
Scope of supply: 1 Set = 4 jaws

Model	Surface finish	Clamping surface Height x width	Opening Jaws	Weight per pair
<b>MHL/30-B</b>	Blank jaws	60x66 mm	0-30 mm	1.20 kg
<b>MHL/30-BP</b>	Ground (pyramid) Jaws	60x66 mm	0-30 mm	1.10 kg
<b>MHL/30-BV</b>	V jaws	Clamping height 60 mm	6-30 mm Ø	1.20 kg
<b>MHL/30-BW</b>	Wave Jaws	60x66 mm	0-30 mm	1.10 kg
<b>MHL/30-BD</b>	Diamond Jaws	60x66 mm	0-30 mm	1.20 kg
<b>MHL/30-BDV</b>	V Jaws (Diamond)	Clamping height 60 mm	6-30 mm Ø	1.20 kg
<b>MHL/30-BG</b>	Rubber coated Jaws	60x66 mm	0-28 mm	1.20 Kg
<b>MHL/30-BP120</b>	Ground Jaws	70x120 mm	0-20 mm	5.40 kg
<b>MHL/30-B210</b>	Blank jaws	70x210 mm	0-20 mm	6.60 kg
<b>MHL/30-BP210</b>	Ground (pyramid) Jaws	70x210 mm	0-20 mm	6.60 kg
<b>MHL/30-BV210</b>	V jaws	Clamping height 70 mm	8-20 mm Ø	6.60 kg
<b>MHL/30-BW210</b>	Wave Jaws	70x210 mm	0-20 mm	6.40 kg
<b>MHL/30-BWG210</b>	Rubber coated Jaws	70x210 mm	0-16 mm	6.70 kg

Please indicate the grip / jaws when ordering, as they cannot be modified after delivery.

Jaws with different dimensions and surface coatings on request



**B Blank  
Blank jaws**  
- Applicable for additional treatments  
- Plain uncoated steel



**BP serrated (pyramids)**  
- Pyramids 1.2x45 °  
- Hardened steel 58 HRC  
- Nickel plated



**BW Wave jaws**  
- For Flexible Materials  
- 5mm waves  
- 58HRC hardened steel  
- Nickel plated



**BW Rubber coated jaws**  
- 1mm rubber layer (NBR)  
- Nickel plated



**BV f/ round samples  
V jaws**  
- For all types of round specim  
- Tooth pitch 1.2 mm  
- 58HRC Hardened steel  
- Nickel plated



**BD Diamond jaws**  
- Clamping area covered with synthetic diamond D91 (170/200 mesh)  
- Nickel plated

Examples:



**MHL/30-BD**  
Diamond coated jaws,  
60x66 mm (height x width)



**MHL/30-260- (wavy)**

**Grips MHL/30 + jaws MHL/30-BW210**



## Hydraulic Side Action Grips Model MHL/90 (90 kN) Simple actuator

## Hydraulic Side Action Grips Model MHL/90-2Ko (90 kN) Double actuator

Hydraulic clamping grips, with **single or double symmetrical actuator**. If it is simple with one side manually adjustable by means of a head screw. These jaws are suitable to be able to align displaced samples in shear tests or asymmetric samples. easy to use and applicable to perform **tensile tests** on samples of sheet materials such as Dumbbell type Plastic, Metal Sheets, Aluminum Sheets, Fabrics, Cloth, Textiles, Composites ..., being incorporated into a Universal Testing Machine



### GENERAL INFORMATION

Easy-to-use hydraulic grips, designed for tensile testing of sheet materials with medium resistance to breakage up to **90 kN**.

#### Hydraulic grips with single actuator model MHL/90

Universal type grips with **simple hydraulic actuator** with one side manually adjustable by means of a butterfly head screw. These grips are suitable to be able to align displaced samples in shear tests or in asymmetric samples.

#### Hydraulic grips with double actuator model MHL/90-2Ko

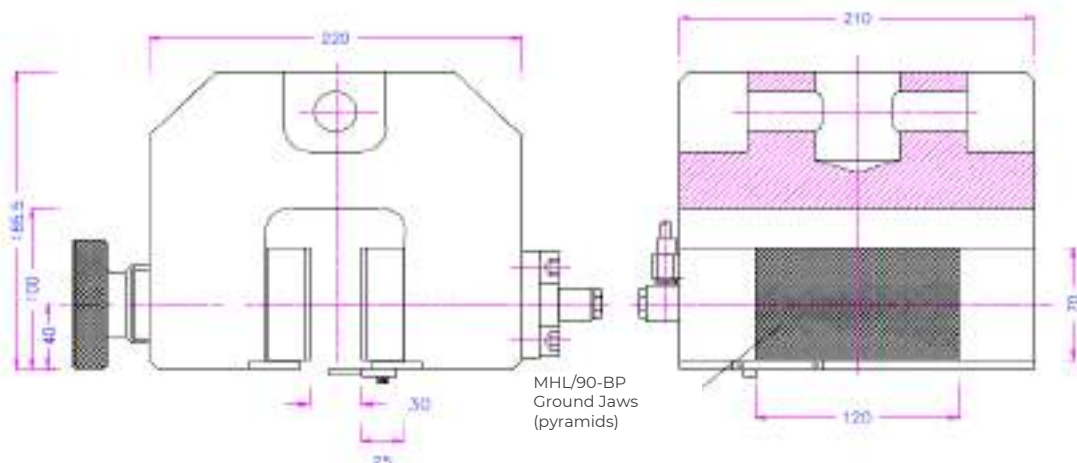
In this **double hydraulic actuator** model, the centering of the specimens is symmetrical.

Ideal for all kinds of samples of flat materials, Rubber, Plastic Dumbbells, Metallic Foils, Aluminum Foils, Fabrics, Cloth, Textiles, Composites ...

- Hydraulic seals can be used from -30 ° C to + 100 ° C (NBR sealing material): article MHL/90-T100
- In special cases we can supply -10 ° C to + 200 ° C (FKM PTFE Bronze sealing material): item MHL/90-T200
- For negative values we recommend using a nickel surface: article MHL/90-Ni

### TECHNICAL CHARACTERISTICS COMMON TO THE 2 MODELS

• <b>Load capacity:</b>	<b>90 kN</b> at 315 Bar
• <b>Clamping force:</b>	<b>180 kN</b> at 315 Bar
• <b>Coupling:</b>	31,8 mm (Other couplings on request)
• <b>Single acting cylinder:</b>	3 x 50mm rods with spring return (max. 15mm travel)
• <b>Hydraulic connection:</b>	1/4"
• <b>Body:</b>	Nickel plated steel
• <b>Jaws:</b>	Nickel Plated Hardened Steel
• <b>Temperature range:</b>	0... + 70 ° C (depending on jaw type) Other ranges on request
• <b>Weight of each jaw:</b>	55 Kg (without jaws) Model MHL/90
• <b>Scope of delivery:</b>	1 pair of Grips (without jaws)





**B Blank Jaws**

- Applicable for additional treatments
- Plain uncoated steel



**BP Ground (pyramids)**

- Pyramids 1.2x45 °
- Hardened steel 58 HRC
- Nickel plated



**BW Wave Jaws**

- For Flexible Materials
- 5 mm waves
- 58 HRC hardened steel
- Nickel plated



**W Rubber Coated Jaws**

- 1mm rubber layer (NBR)
- Nickel plated



**BV V Jaws  
F/ Round Samples**

- For all types of round specimens
- Tooth pitch 1.2 mm
- 58HRC Hardened steel
- Nickel plated

**Jaws for Grips MHL / 90 and MHL / 90-2Ko: Scope of supply: 1 set = 4 jaws**

**Different types of jaw finishes for MHL / 90 - MHL / 90-Ko jaws:**

**Scope of supply: 1 Set = 4 jaws**

Please indicate the grips/ jaws when ordering, as they cannot be modified after delivery.

Jaws with different dimensions and surface coatings on request

Model	Surface finish	Clamping surface Height x width	Opening Jaws	Weight per pair
<b>MHL/90-B</b>	Blank Jaws	70x210 mm	0-30 mm	6.60 kg
<b>MHL/90-BP120</b>	Pyramid Jaws	70x120 mm	0-30 mm	6.60 kg
<b>MHL/90-BP</b>	Pyramid Jaws	70x210 mm	0-30 mm	5.40 kg
<b>MHL/90-BV</b>	V Jaws	Clamping height 70 mm	6-30 mm Ø	6.60 kg
<b>MHL/90-BW</b>	Wave Jaws	70x210 mm	0-30 mm	6.60 kg
<b>MHL/90-BWG</b>	Jaws coated Rubber	70x210 mm	0-26 mm	6.70 Kg



## Hydraulic Side Action Grips Model MHL/100 (90 kN) Simple actuator

## Hydraulic Side Action Grips Model MHL/100-2Ko (100 kN) Double actuator

Hydraulic clamping grips, with **single or double symmetrical actuator**.

If it is simple with one side manually adjustable by means of a head screw. These jaws are suitable to be able to align displaced samples in shear tests or asymmetric samples. easy to use and applicable to perform **tensile tests** on samples of sheet materials such as Dumbbell type Plastic, Metal Sheets, Aluminum Sheets, Fabrics, Cloth, Textiles, Composites ..., being incorporated into a Universal Testing Machine



### GENERAL INFORMATION

Easy-to-use hydraulic grips, designed for tensile testing of sheet materials with medium resistance to breakage up to **100 kN**.

#### Hydraulic grips with single actuator model MHL/100

Universal type grips with **simple hydraulic actuator** with one side manually adjustable by means of a butterfly head screw. These grips are suitable to be able to align displaced samples in shear tests or in asymmetric samples.

#### Hydraulic grips with double actuator model MHL/100-2Ko

In this **double hydraulic actuator** model, the centering of the specimens is symmetrical.

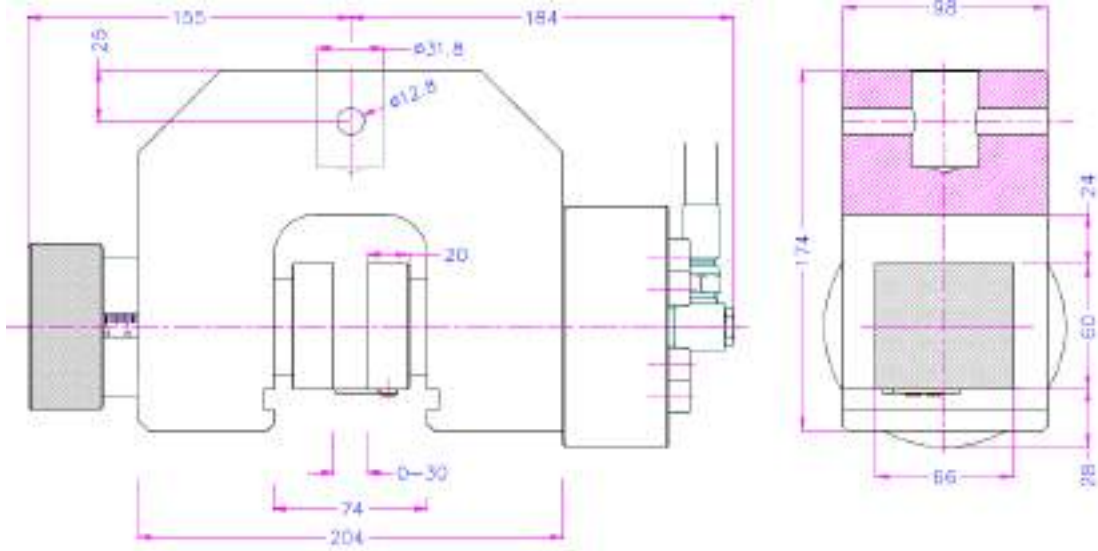
Ideal for all kinds of samples of flat materials, Rubber, Plastic, Metallic Foils, Aluminum Foils, Fabrics, Cloth, Textiles, Composites...

- Hydraulic seals can be used from -30 ° C to + 100 ° C (NBR sealing material): article MHL/100-T100
- In special cases we can supply -10 ° C to + 200 ° C (FKM PTFE Bronze sealing material): item MHL/100-T200
- For negative values we recommend using a nickel surface: article MHL/100-Ni

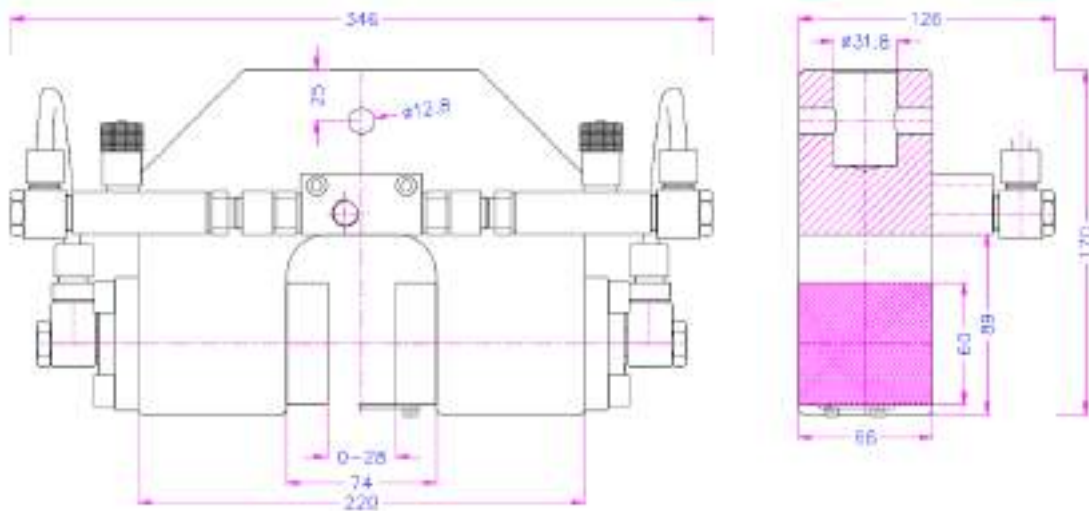
### TECHNICAL CHARACTERISTICS COMMON 2 MODELS

• <b>Load capacity:</b>	<b>100 kN</b> at 350 Bar
• <b>Clamping force:</b>	<b>200 kN</b> at 350 Bar
• <b>Coupling:</b>	31,8 or 40 mm (Other couplings on request)
• <b>Single acting cylinder:</b>	50 mm Ø with return spring (max travel 15 mm)
• <b>Hydraulic connection:</b>	1/4"
• <b>Body:</b>	Nickel plated steel
• <b>Jaws:</b>	Nickel Plated Hardened Steel
• <b>Temperature range:</b>	0... + 70 ° C (depending on jaw type) Other ranges on request
• <b>Weight of each jaw:</b>	24,5 Kg (without jaws) Model MHL/100
• <b>Scope of delivery:</b>	1 pair of Grips (without jaws)





**HYDRAULIC JGRIPS WITH DOUBLE ACTUATOR MODEL MHL / 100-2Ko**



**Different types of jaw finishes for the MHL / 60 - MHL / 60-Ko jaws:  
Scope of supply: 1 Set = 4 jaws**

Please indicate the grips/jaws when ordering, as they cannot be modified after delivery.

Jaws with different dimensions and surface coatings on request

Model	Surface finish	Clamping surface Height x width	Opening Jaws	Weight per pair
<b>MHL/100-B</b>	Blank Jaws	60x66 mm	0-30 mm	1.20 kg
<b>MHL/100-BP</b>	Ground (Pyramids) Jaws	60x66 mm	0-30 mm	1.10 kg
<b>MHL/100-BV</b>	V Jaws	Clamping height 60 mm	6-30 mm Ø	1.20 kg
<b>MHL/100-BW</b>	Wave Jaws	60x66 mm	0-30 mm	1.10 kg
<b>MHL/100-BD</b>	Diamond Jaws	60x66 mm	0-30 mm	1.20 kg
<b>MHL/100-BDV</b>	V Diamond Jaws	Clamping height 60 mm	6-30 mm Ø	1.20 kg
<b>MHL/100-BG</b>	Coated Rubber Jaws	60x66 mm	0-28 mm	1.20 Kg



**B Blank  
Blank jaws**  
- Applicable for additional treatments  
- Plain uncoated steel



**BP serrated (pyramids)**  
- Pyramids 1.2x45 °  
- Hardened steel 58 HRC  
- Nickel plated



**BW Wave jaws**  
- For Flexible Materials  
- 5mm waves  
- 58HRC hardened steel  
- Nickel plated



**BW Rubber coated jaws**  
- 1mm rubber layer (NBR)  
- Nickel plated



**BV f/ round samples  
V jaws**  
- For all types of round specim  
- Tooth pitch 1.2 mm  
- 58HRC Hardened steel  
- Nickel plated



**BD Diamond jaws**  
- Clamping area covered with synthetic diamond D91 (170/200 mesh)  
- Nickel plated

**Examples:**



**MHL/100-BD**  
Diamond coated jaws,  
60x66 mm (height x width)



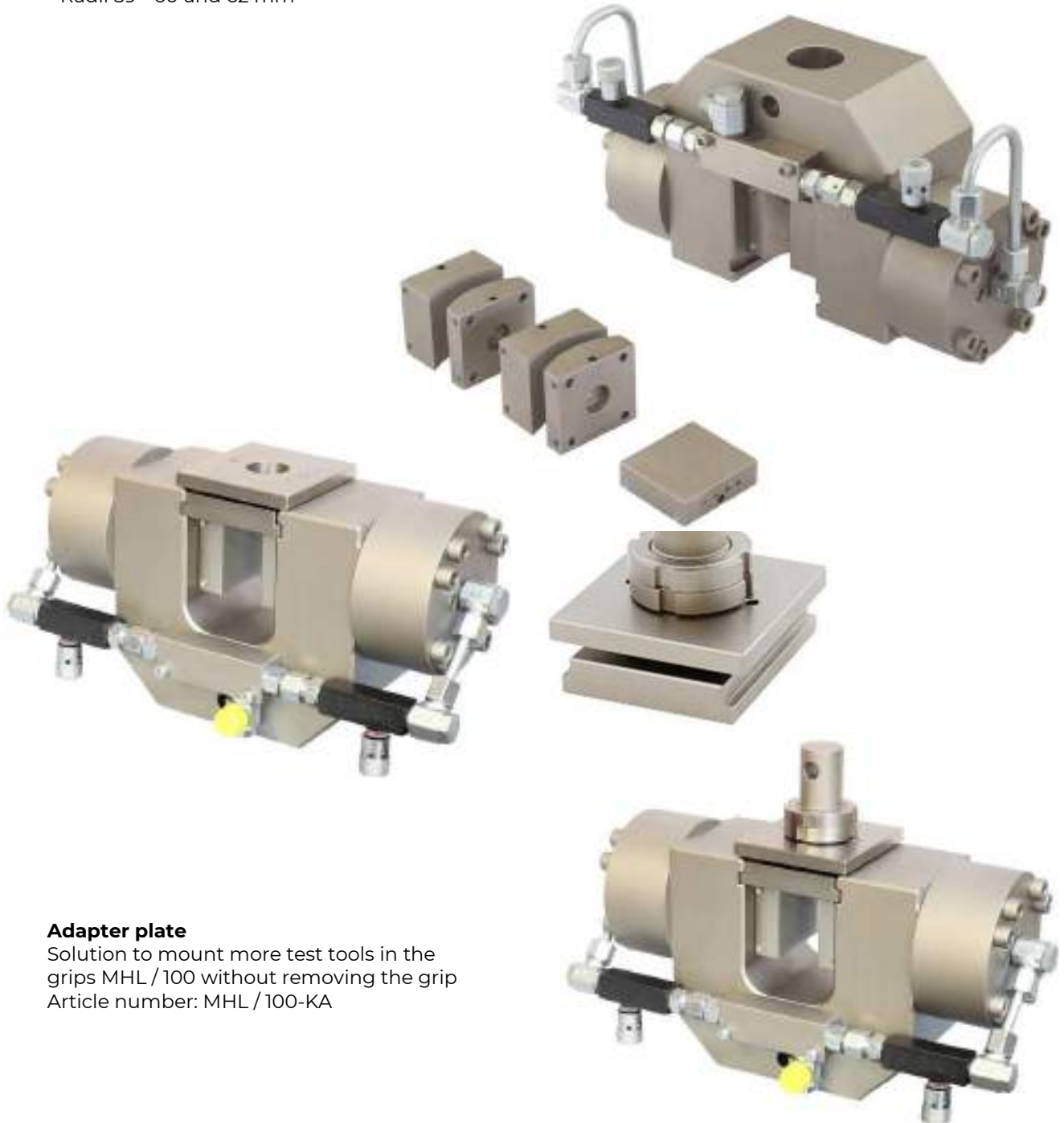
**MHL/100-260- (wavy)**

## Example of grips with special jaws:

### 100 kN hydraulic grips:

#### Specialty grips (pipe segment grips)

- 2 cylinders of 80 mm diameter
- Holding force 200 kN at 350 bar
- Centering device
- Aperture of 0-30 mm
- 40 mm coupling
- Radii 59 - 60 and 62 mm



### Adapter plate

Solution to mount more test tools in the grips MHL / 100 without removing the grip  
Article number: MHL / 100-KA



**Hydraulic grips MHL/100-2Ko**  
Special version with 2 rods and back regulating valve to adjust the pressure

**Customized jaws:**



**Custom Diamond Coated V Jaws**  
for round samples of 6-20 mm Ø

## Hydraulic Wedge Grips model MHC/250 (250 kN)

Hydraulic clamping grips with wedge action jaws, easy to use and applicable for perform **tensile tests** on specimens of **metallic materials up to 30 mm thick**, with a simple vertical hydraulic cylinder, being incorporated into a Universal Testing Machine



### GENERAL INFORMATION

Easy-to-use hydraulic grips designed for tensile testing of sheet or round metal materials with high resistance to breakage up to **250 kN**.

### Single Cylinder Hydraulic Grips Model MHC/250

Closing jaws makes big preload in axial direction machine must drive to zero when second grip is closed front door must be closed when load is switched on incl. door switch to protect grip

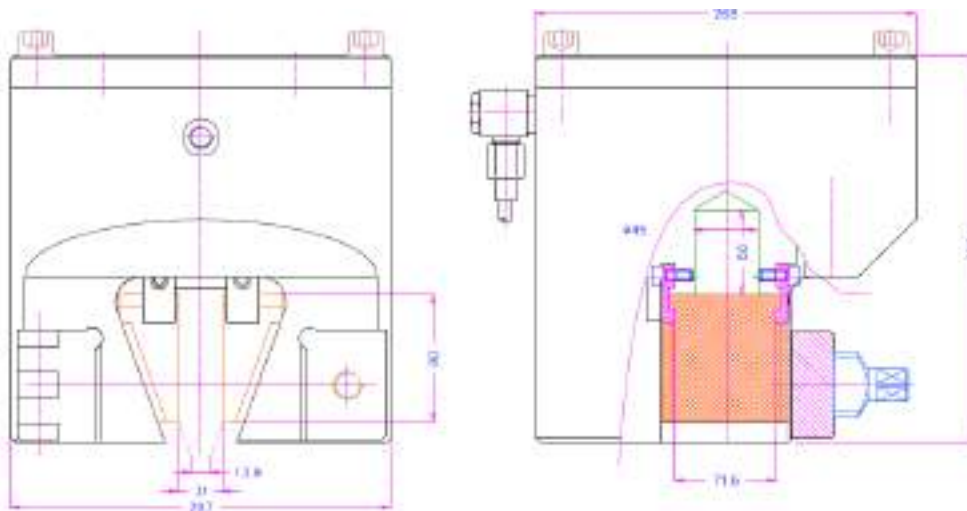
TECHNICAL CHARACTERISTICS	
• <b>Load capacity:</b>	<b>250 kN</b> a 315 Bar
• <b>Clamping force:</b>	<b>600 kN</b> a 315 Bar
• <b>Cylinder:</b>	De simple efecto vertical
• <b>Weight of each grip:</b>	100 Kg
• <b>Scope of delivery:</b>	1 pair of Grips (without jaws)

**Jaws for MHC/250 grips : Scope of delivery:** 1 set = 4 jaws

Please indicate the grips / jaws when ordering, as they cannot be modified after delivery.

Jaws with different dimensions and surface coatings on request

Model	Surface finish	Clamping surface Height x width	Opening Jaws	Weight per pair
<b>MHL/250-BP12</b>	Pyramid jaws	70x90 mm	0-12 mm	6.60 kg
<b>MHL/250-BP22</b>	Pyramid jaws	70x90 mm	10-22 mm	5.40 kg
<b>MHL/250-BV15</b>	V jaws	Clamping height 70 mm	5-15 mm Ø	6.60 kg
<b>MHL/250-BV20</b>	V jaws	Clamping height 70 mm	10-20 mm Ø	6.60 kg
<b>MHL/250-BV30</b>	V jaws	Clamping height 70 mm	20-30 mm Ø	6.60 kg



**Hydraulic Edge Grips model MHC/400 (400 kN)**

**Hydraulic Edge Grips model MHC/600 (600 kN)**

**Hydraulic Edge Grips model MHC/1000 (1000 kN)**

**Hydraulic Edge Grips model MHC/1500 (1500 kN)**

Hydraulic clamping grips with wedge action jaws, easy to use and applicable to perform **tensile tests** on samples of **metallic materials** for flat specimens up to **60 mm** in thickness or in round diameter, with a simple vertical hydraulic cylinder, being incorporated into a Universal Testing Machine



**GENERAL INFORMATION**

Easy-to-use hydraulic grips, designed for tensile testing of sheet or round metal materials with very high resistance to breakage from 400 kN to 1500 kN.

**MHC / 400-1500 Series Single Cylinder Hydraulic Grips**

Closing jaws makes big preload in axial direction machine must drive to zero when second grip is closed front door must be closed when load is switched on incl. door switch to protect grip

MODEL	MHC/400	MHC/600	MHC/1000	MHC/1500
• <b>Load capacity:</b>	<b>400 kN</b>	<b>600 kN</b>	<b>1000 kN</b>	<b>1500 kN</b>
• <b>Clamping force:</b>	1000 kN	1500 kN	2500 kN	3000 kN
• <b>Weight 1 pair grips :</b>	100 Kg	120 Kg	160 Kg	190 Kg



**HYDRAULIC GRIPS MHC / 1000 kN (closed and open)**

**Jaws for MHC / 400-1500 series:** Scope of supply: 1 set = 4 jaws

Please indicate the grips / jaws when ordering, as they cannot be modified after delivery.

Model	Surface Finish	Type	Opening jaws
<b>MHC-BP15</b>	Ground jaws (pyramids) for flat / round specimens		0-15 mm & Ø
<b>MHC-BP20</b>	GroundJaws (pyramids) for flat specimens		5-20 mm
<b>MHC-BP30</b>	GroundJaws (pyramids) for flat specimens		15-30 mm
<b>MHC-BP45</b>	GroundJaws (pyramids) for flat specimens		30-45 mm
<b>MHC-BP60</b>	GroundJaws (pyramids) for flat specimens		45-60 mm
<b>MHC-BV5-15</b>	V-jaws for round specimens		5-15 mm Ø
<b>MHC-BV30</b>	V-jaws for round specimens		15-30 mm Ø
<b>MHC-BV45</b>	V-jaws for round specimens		30-45 mm Ø
<b>MHC-BV60</b>	V-jaws for round specimens		45-60 mm Ø

Jaws with different dimensions and surface coatings on request

**SOME EXAMPLES OF JAWS:**

**MHC-BP15**

Ground Jaws (Pyramids) 1.2x45  
 For Flat and Round specimens: 0-15 mm / 0-15 mm Ø  
 Jaw Pair Weight: 7.7 Kg



**MHC-BP20**

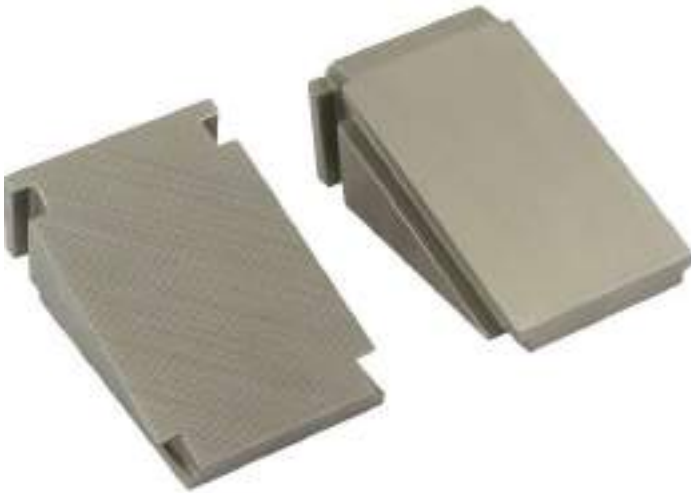
Ground Jaws (Pyramids) 1.2x45  
 For flat specimens: 0-15 mm



**MHC-BP20-R200 (curved)**

Ground Jaws (Pyramids) 1.2x45  
 To test parts of a 200 mm Ø tube  
 Maximum possible thickness to test: 20 mm





**MHC-BP60**  
Ground Jaws (Pyramids) 1.2x45  
For flat specimens thicknesses: 45-60 mm



**MHC-BVP30**  
Ground Jaws (Pyramids)  $\emptyset$   
For round specimens: 15-30 mm



**MHC-BVP30-45**  
Ground V Jaws (Pyramids)  $\emptyset$   
Round Specimens: 30-45 mm

**MHC-1000-16xM30TK200**  
With flange adapter  
15xM30 in 200mm circle



## **Hydraulic/Pneumatic Wedge Grips MC/HT series** **(models with capacities between 10-250 kN)**

### **Designed for tensile tests at “HIGH TEMPERATURES”**

Pneumatic or hydraulic clamping grips with wedge-type jaws, easy to use and applicable to perform **tensile tests** in thermal chambers at **high temperatures** between -70°C (-180) and + 350°C (500°C, 700°C) on samples of sheet materials such as Rubber, Dumbbell type Plastic, Metallic Sheets, Aluminum Sheets, Fabrics, Textiles, Composites ..., being incorporated into a Universal Testing Machine



### **GENERAL INFORMATION**

Line of easy-to-use pneumatic and hydraulic wedge type grips, designed for tensile tests of sheet materials for resistance to breakage in the range between **10 kN** and **250 kN**.

The MC / HT series wedge action grips are specially designed for use within environmental chambers at different temperatures. The grips are designed so that the gripping (clamping) part is inside the chamber at operating temperature and the power cylinder (pneumatic or hydraulic) is outside, located at room temperature. Gripper heads (jaws) open and close remotely to eliminate the need to cool them before changing samples to be tested. The change of specimens is fast. Because the grip head works in the chamber, thermal gradients are minimized.

The MC / HT series pneumatic and hydraulic wedge-action grips feature gripper bodies that move vertically to open and close the wedge jaws. As the bodies move, the jaws are held in position on the specimen and open and close. Double-acting wedge-shaped grips move simultaneously relative to the centerline of the jaw, ensuring correct sample alignment and eliminating bending stresses that sometimes invalidate test results.

Both round and flat samples can be tested with the MC / HT series grips and saves a lot of time by offering quick and easy sample insertion. They have a constant clamping load that protects specimens from slipping as they are stretched during tensile testing.

### **PNEUMATIC WEDGE GRIPS MC / HT series... - (N)**

MHC/HT series	MC/HT-10-N	MC/HT-20-N	MC/HT-50-N	MHC/HT-100-N
<b>Load capacity:</b>	<b>10 kN</b>	<b>20 kN</b>	<b>50 kN</b>	<b>100 kN</b>
<b>Grips diameter:</b>	90 mm	150 mm	198 mm	198 mm
<b>Maximum specimen width:</b>	40 mm	50 mm	60 mm	60 mm
<b>Maximum specimen thickness:</b>	7 mm	14 mm	14 mm	15 mm
<b>Temperature range:</b>	Stainless Steel Construction -70°C to +350C			

**HYDRAULIC WEDGE GRIPS MC / HT series... - (H)**

Serie MHC/HT	MC/HT-100-H	MC/HT-250-H
<b>Load capacity:</b>	<b>100 kN</b>	<b>250 kN</b>
<b>Grips diameter:</b>	198 mm	296 mm
<b>Maximum specimen width:</b>	60 mm	80 mm
<b>Maximum specimen thickness:</b>	15 mm	19 mm
<b>Temperature range:</b>	Stainless Steel Construction -70°C to +350C	



MC/HT-50-N (50kN)



MC/HT-100-N (100kN)



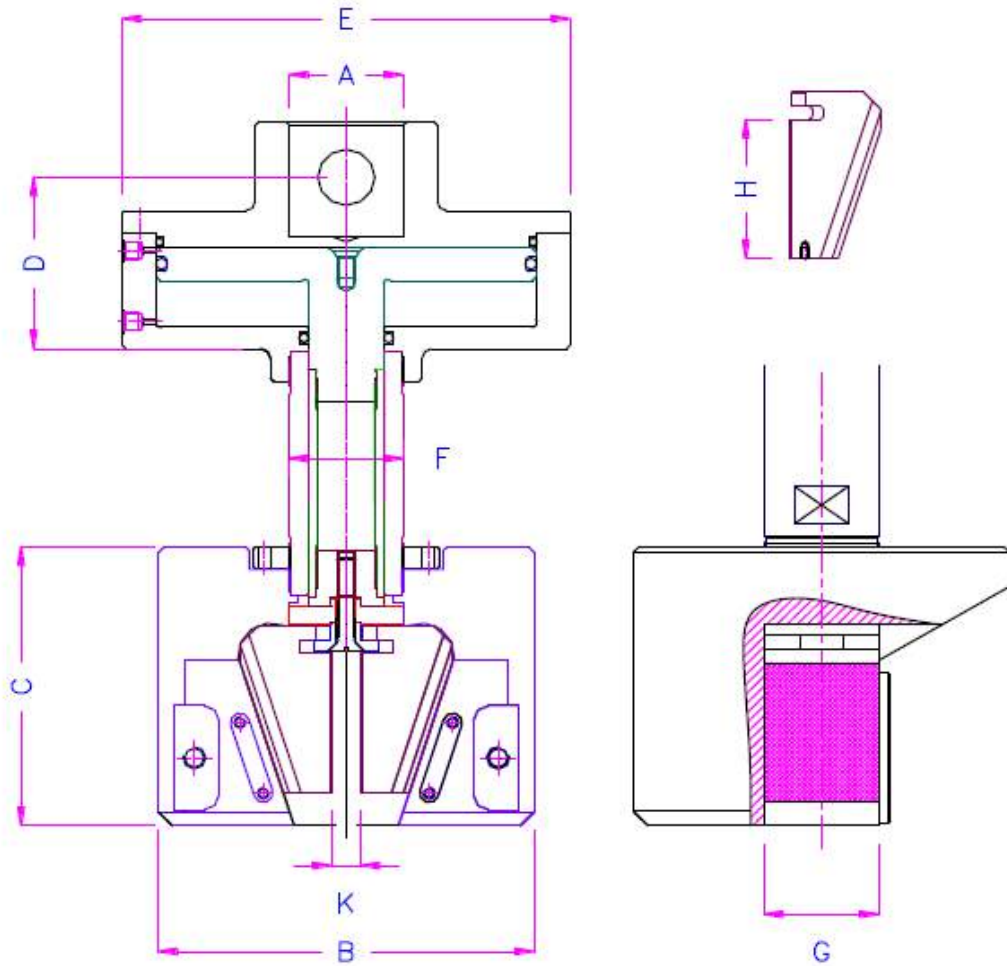
MC/HT-250-H (250kN)

**Interchangeable jaws available for size requirements**

Jaws models	Jaws type
<b>MC/HT-XXBP</b>	Ground (Pyramids) (0.8 mm x45) for flat specimens
<b>MC/HT-XXBV</b>	V-jaws for round specimens

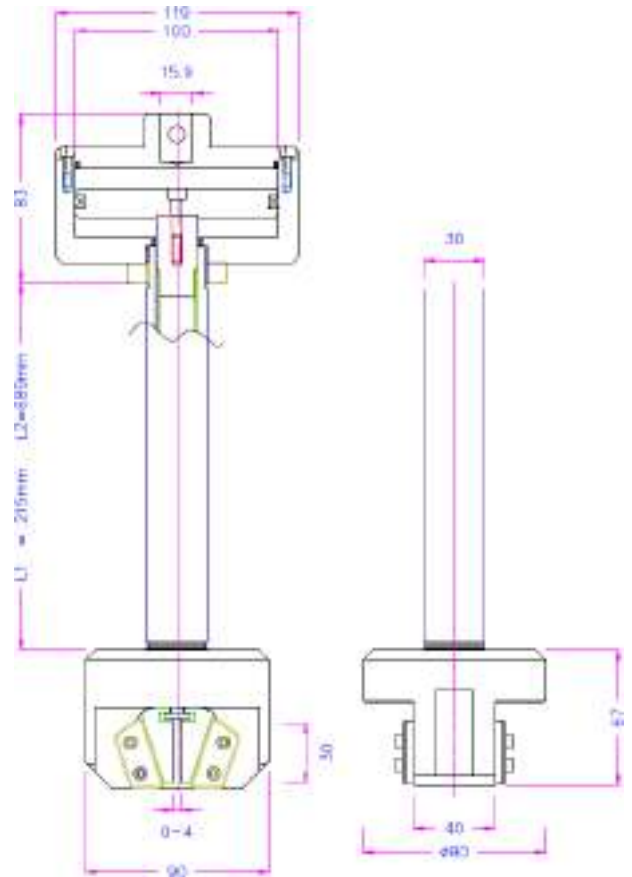
MC / HT grips are subjected to high and low temperatures and are designed for use in environmental chambers at temperatures up to + 350 ° C. Test machine adapters, push and pull rods / stems, and special sealing designs are available for a variety of test scenarios.

**As the needs in this field of testing at different temperatures with different materials can be very wide and different in each project, please contact an applications engineer to configure a solution to the requirements of your application or need.**



	kN	A	B	C	D	E	F	G	H	K	TYPE	WEIGHT 1 head
MODEL	kN	mm	mm	mm	mm	mm	mm	mm	mm	mm		kg
MC/HT-10-N	10	15.9	90	78	63	120	30	40	30	0-7	PNEUMATICS	
MC/HT-20-N	20	15.9	150	100	81	158	40	50	50	0-14	PNEUMATICS	
MC/HT-50-N	50	31.8	198	120	101	236	54	60	67	0-14	PNEUMATICS	
MC/HT-100-N	100	40	198	150	92	236	60	60	75	0-15	PNEUMATICS	50
MC/HT-100-H	100	40	198	150	92	236	60	60	75	0-15	HYDRAULICS	50
MC/HT-250-N	250	60	296	225	170	198	90	80	110	0-19	HYDRAULICS	120

**MC/HT-10-N-T425°c**  
10kN pneumatics



**MC/HT-50-N**

Max. Load: 50kN  
Keeping force with 7 bar : 21kN  
(max. 16 bar UN216)



**MC/HT-100-N**

Rod dia 200mm  
Prekeeping force 30kN with 7 bar  
(64kN with 15 bar)

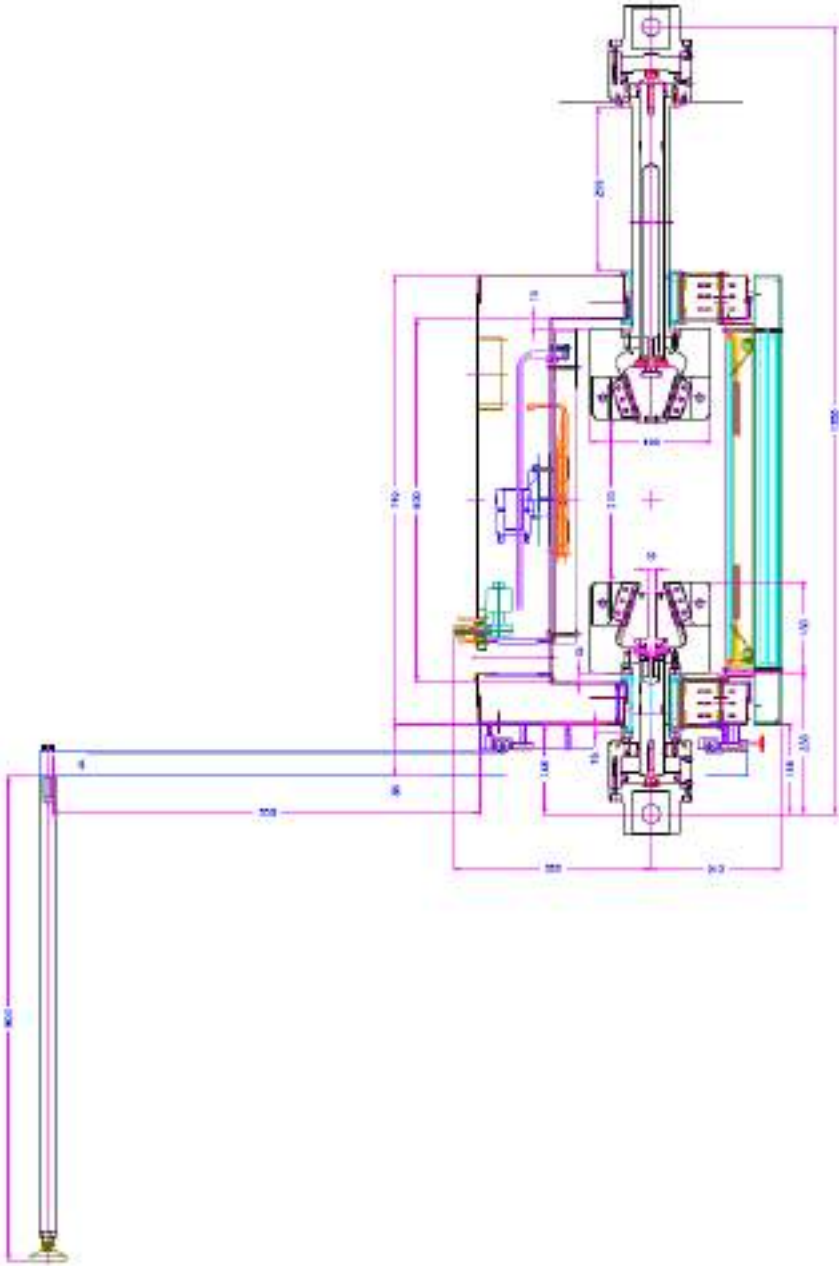


**MC/HT-100-H**

Load Capacity: 100 kN  
keeping force: 200 kN



**Support Set + THERMAL CHAMBER (-180 ° C .. 350 ° C) + Hydraulic grips MC/HT-100-H**



**MC/HT-250-H**

**Hydraulic Wedge Grips** for use in  
Thermal Chambers (-180 ° C to 350 ° C)  
Clamping force: 250kN



**HYDRAULIC GRIPS WITH SPECIAL WEDGE**

- |                                   |  |
|-----------------------------------|--|
| • <b>Load capacity:</b>           | <b>250 kN</b>                                  |
| • <b>Clamping force:</b>          | 520 kN at 260 Bar                              |
| • <b>Type of test specimens :</b> | For short samples                              |
| • <b>Body:</b>                    | Nickel plated steel                            |
| • <b>Jaws:</b>                    | Hardened steel 58 HRC                          |
| • <b>Temperature range:</b>       | +180°C to + 350 ° C<br>Other ranges on request |
| • <b>Coupling:</b>                | 60 mm<br>( Other couplings on request )        |

The parallel closure body moves up and down.

- |                             |                                |
|-----------------------------|--------------------------------|
| • <b>Scope of delivery:</b> | 1 pair of Grips (without jaws) |
|-----------------------------|--------------------------------|





## PNEUMATIC ACCESSORIES:



### UN205-1 Foot pedals

**None-locking:** The grip jaws open by pressing the foot pedal and close after removing the foot from the pedal.

**Scope of delivery:** 1 pair of foot switches including tubes and fittings



### UN205-2 Foot pedal

**With locking function:** The grip jaws open by pressing the foot pedal and remain opened after removing the foot from the pedal. The jaws close by pressing the pedal one more time.

**Scope of delivery:** 1 pair of foot switches including tubes and fittings



### UN205-+PR16bar Pressure regulator

Optional for UN205-1 o UN-205-2

To adjust air pressure: 1-16 bar



### UN205-3 Hand switches

**With locking function:** The jaws of the grip close by pulling the handle and remain closed. The jaws open by pushing the handle back.

**Scope of delivery:** 1 unit of hand switches including tubes and fittings



### UN205-4-M5 Handheld Micro-Switches

Pneumatic manual microswitches, tubes and fittings, M5 pneumatic connection

**With lockout feature:** Manual switches mount directly to handles (1/8" couplings only), 3/2 directional valve. Only for single action rods with spring inside.

**Scope of supply:** 2 manual switches including tubes and accessories



### UN216 Silent compressor for laboratories, oil-lubricated, with pressure reducer

Max pressure 16 bar; 230 V/50 HZ; noise level: 38 dB(A)

Motor: 0.13 kW; displacement: 17 l/min; tank size 3.5 l Dimensions: 340x290x340 mm (L x W x H); weight 18 kg

Different voltages on demand

## HYDRAULIC ACCESSORIES:

### UH-HP2-2-400

Air hydraulic pump for spring return hydraulic jaws:

- 2 valves for independent change of the handles (open - close)
- Remote control with ON / OFF switches
- Capacity: 2.75 l / min, 400 bar
- 1:61 (air pressure: oil pressure)
- Dimensions (LxWxH): 350 x 250 x 400 mm
- Weight 27.5 kg; 220 V 0.1 A. Noise level 60 dBA.
- Includes 2 tubes: 3 m and 5 m long



### UH-HP2-2-G-a-400

UH-HP2-2-400, but:

- Incl. Housing for noise reduction, noise level closed in the box 50 dBA
- With analog pressure transducer: clamping pressure can be adjusted by analog signal 1-10 volts -> 40-400 bar
- Dimensions (LxWxH): 723 x 350 x 617 mm
- Includes 2 tubes: 3 m and 5 m long



### UH-HP4-2-G-a-400

Air hydraulic pump for spring return hydraulic grips similar to UH-HP2-2-G-a-400 but:

- with 4 hydraulic valves to lock the jaws in any required position (open - stop - close)
- includes 2 tubes: 3 m and 5 m long



### UH-HP4-4-G-a-315

Air hydraulic pump for double action hydraulic jaws without spring return:

- with 4 hydraulic valves to lock the jaws in any required position (open - stop - close)
- with analog pressure transducer: clamping pressure can be adjusted by analog signal,
- max. pressure 315 bar
- Includes housing for noise reduction
- Includes 4 tubes: 2x 3 m and 2x 5 m long



Máquinas de Ensayos recomendadas:



MTE-10 (to 10 kN)



MTE-25 (to 25 kN)



MTE-50 (to 50 kN)



MTE-100 (to 100 kN)



MTE-400 (to 750 kN)



MTE-300 (to 300 kN)