

# PNEUMATIC "WEDGE" GRIPS FOR TENSILE TESTS MNC Series (10-300 kN)

Pneumatic clamping grips with wedge-type self-clamping jaws, easy to use and applicable to perform **tensile tests** on samples of rigid materials such as **plastics, ceramics, composites, metals...**, being incorporated into a Universal Testing Machine with a capacity of adequate strength.



**TECHLAB**SYSTEMS

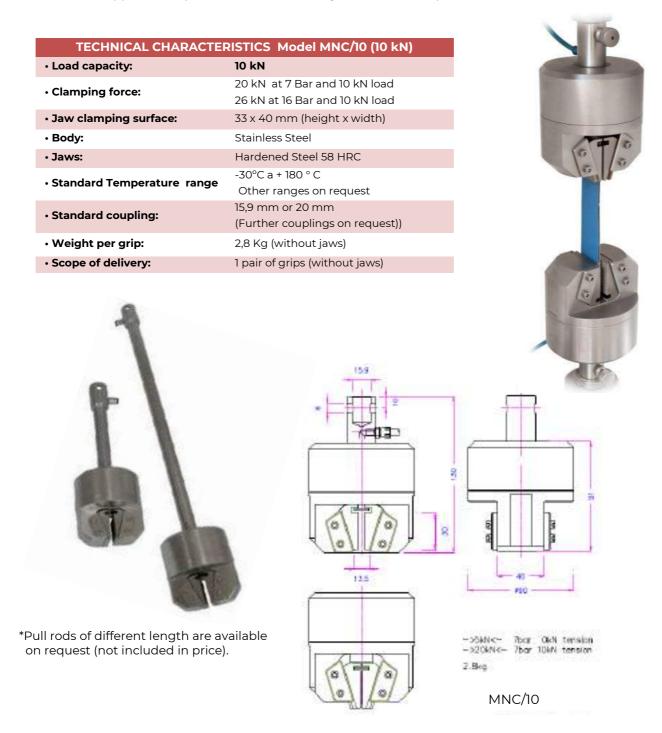


#### **GENERAL INFORMATION**

Easy-to-use pneumatic grips, designed with wedge-type jaws for **tensile testing** of sheet materials of medium and high resistance to breakage, we have models in a range between **10 and 300 kN** of tensile force capacity

Universal type grips for tensile testing of tough materials such as plastics, reinforced polymers, composites, metals, ceramics, wood ...

- Self-aligning centric jaw movement
- Self-intensifying clamping system to hold a sample securely in place, very high clamping load
- Can be supplied with pull rods of different length for use in temperature chambers\*





## Jaws for MNC/10 grips

Model	Surface	Clamping surface height x width	Jaws opening	Weight per pair
MNC/10-BP6	Pyramid (serrated)	33x40 mm	0–6 mm	0,30 kg
MNC/10-BP12	Pyramid (serrated)	33x40 mm	6–12 mm	0,20 kg
MNC/10-BP16	Pyramid (serrated)	33x40 mm	10–16 mm	0,20 kg
MNC/10-BV2	V jaws	Clamping height 33 mm	2–6 mm Ø	0,30 kg
MNC/10-BV6	V jaws	Clamping height 33 mm	6–12 mm Ø	0,20 kg

Scope of standard delivery: 1 Set = 4 jaws

Jaws with other surface coating and opening are possible on request



# BP Serrated (pyramids)

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



# BV4 f/round specimen V jaws

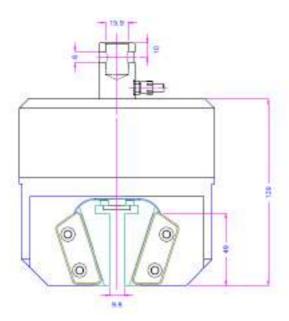
- For all types of round specimens
- Tooth pitch 1.2 mm
- Hardened steel 58HRC
- Nickel plated

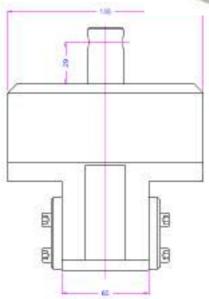


TECHNICAL CHARACTERISTICS Model MNC/20 (20 kN)			
• Load capacity:	20 kN		
Clamping force:	43 kN at 7 Bar and 20 kN load		
Jaw clamping surface:	50 x 60 mm (height x width)		
• Body:	Stainless Steel		
• Jaws:	Hardened Steel 58 HRC		
Standard Temperature range	-30°C a + 180 ° C Other ranges on request		
Standard coupling:	15,9 mm or 20 mm (Further couplings on request))		
• Weight per grip:	8,9 Kg (without jaws)		
Scope of delivery:	1 pair of grips (without jaws)		









Jaws for MNC/20 grips

Model	Surface	Clamping surface height x width	Jaws opening	Weight per pair
MNC/20-BP8	Pyramid (serrated)	50x60 mm	0–8 mm	1,00 kg
MNC/20-BP14	Pyramid (serrated)	50x60 mm	5–14 mm	0,90 kg
MNC/20-BP20	Pyramid (serrated)	50x60 mm	12–20 mm	0,80 kg
MNC/20-BV8	V jaws	Clamping height 50 mm	3–8 mm Ø	1,00 kg
MNC/20-BV15	V jaws	Clamping height 50 mm	8–15 mm Ø	0,90 kg
MNC/20-BV20	V jaws	Clamping height 50 mm	13–20 mm Ø	0,80 kg

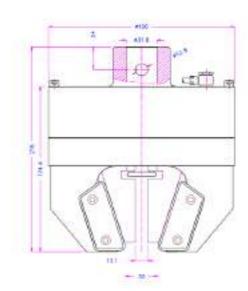
Scope of standard delivery: 1 Set = 4 jaws

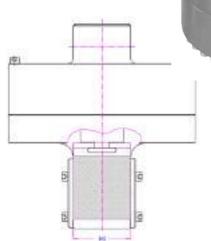


TECHNICAL CHARACTERISTICS Model MNC/50 (50 kN)			
• Load capacity:	50 kN		
Clamping force:	103 kN at 7 Bar and 50 kN load		
Jaw clamping surface:	67 x 60 mm (height x width)		
• Body:	Stainless Steel		
• Jaws:	Hardened Steel 58 HRC		
Standard Temperature range	-30°C a + 180 ° C Other ranges on request		
Standard coupling:	31,8 mm (Further couplings on request))		
• Weight per grip:	20,5 Kg (without jaws)		
Scope of delivery:	1 pair of grips (without jaws)		









Jaws for MNC/50 grips

Model	Surface	Clamping surface height x width	Jaws opening	Weight per pair
MNC/50-BP12	Pyramid (serrated)	67x60 mm	0–12 mm	2,20 kg
MNC/50-BP22	Pyramid (serrated)	67x60 mm	10–22 mm	1,90 kg
MNC/50-BP32	Pyramid (serrated)	67x60 mm	20–32 mm	1,50 kg
MNC/50-BP42-5G-RN48*	Pyramid (serrated)	67x60 mm	30–42 mm	1,40 kg
MNC/50-BV12	V jaws	Clamping height 67 mm	5–12 mm Ø	2,20 kg
MNC/50-BV22	V jaws	Clamping height 67 mm	12-22 mm Ø	1,90 kg
MNC/50-BV32	V jaws	Clamping height 67 mm	22–32 mm Ø	1,50 kg
MNC/50-BV42+SG+RN48*	V jaws	Clamping height 67 mm	32–42 mm Ø	1,40 kg

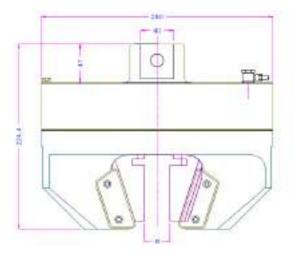
<sup>\*</sup>supplied with special guides and retracting nose (included in the price)

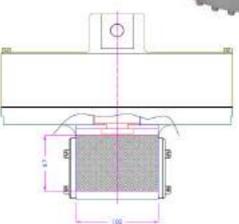
Scope of standard delivery: 1 Set = 4 jaws



TECHNICAL CHARACTERISTICS Model MNC/10 (100 kN)			
• Load capacity:	100 kN		
· Clamping force:	210 kN at 7 Bar and 100 kN load 274 kN at 15 Bar and 100 kN load		
<ul> <li>Jaw clamping surface:</li> </ul>	67 x 60 mm (height x width)		
• Body:	Stainless Steel		
• Jaws:	Hardened Steel 58 HRC		
Standard Temperature range	-30°C a + 180 ° C Other ranges on request		
Standard coupling:	40 mm (Further couplings on request))		
• Weight per grip:	42 Kg (without jaws)		
Scope of delivery:	1 pair of grips (without jaws)		







# Jaws for MNC/100 grips

Model	Surface	Clamping surface height x width	Jaws opening	Weight per pair
MNC/100-BP12	Pyramid (serrated)	67x60 mm	0–12 mm	3,80 kg
MNC/100-BP22	Pyramid (serrated)	67x60 mm	10–22 mm	3,30 kg
MNC/100-BP32	Pyramid (serrated)	67x60 mm	20–32 mm	2,70 kg
MNC/100-BV12	V jaws	Clamping height 67 mm	4–13 mm Ø	3,70 kg
MNC/100-BV22	V jaws	Clamping height 67 mm	13-22 mm Ø	3,20 kg
MNC/100-BV32	V jaws	Clamping height 67 mm	22–32 mm Ø	2,90 kg

Scope of standard delivery: 1 Set = 4 jaws



### **Examples for customized solutions:**



MNC/100-50-Ni-T250°C Temperature range to +250°C





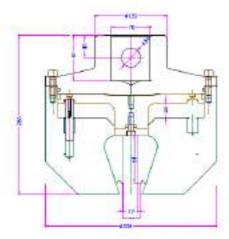
Top Pneumatic Wedge Jaw with pull rod and thermal protection

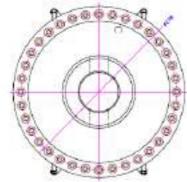


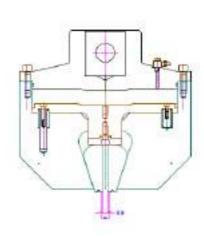


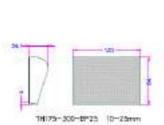
TECHNICAL CHARACTERISTICS Model MNC/300 (300 kN)			
• Load capacity:	300 kN		
Clamping force:	517 kN at 7 Bar and 300 kN load		
Jaw clamping surface:	84 x 120 mm (height x width)		
• Body:	Stainless Steel		
• Jaws:	Hardened Steel 58 HRC		
Standard Temperature range	-30°C a + 180 ° C Other ranges on request		
Standard coupling:	70 mm (Further couplings on request))		
• Weight per grip:	100 Kg (without jaws)		
Scope of delivery:	1 pair of grips (without jaws)		

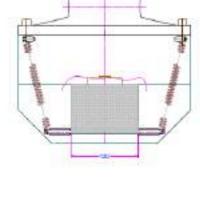
















# Jaws for MNC/300 grips

Model	Surface	Clamping surface height x width	Jaws opening	Weight per pair
MNC/300-B25	Blank jaws	84x120 mm	10-25 mm	3,90 kg
MNC/300-BP25	Pyramid (serrated) jaws	84x120 mm	10–25 mm	3,90 kg
MNC/300-BW25	Wave jaws	84x120 mm	10–25 mm	3,80 kg
MNC/300-BD25	Diamond jaws	84x120 mm	10–25 mm	3,90 kg
MNC/300-BV15	V jaws for round specimen	Clamping height 84 mm	5-15 mm Ø	4,40 kg

Scope of standard delivery: 1 Set = 4 jaws











Blank jaw

Pyramid 1x45°

Wave jaws

Diamond jaws

V 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: I 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 Toadjust 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