# PNEUMATIC POWER CLAMPS

Pneumatic power clamps with compensation system, toggle-joint mechanism and stepless adjustable opening angle, tipically used for handling and holding metal sheets in welding applications, including the most demanding aluminium welding applications, characterized by high magnetic fields and fine dust:

- Fully adjustable opening angle
- Electronic sensor with M12 swivel connector or pneumatic sensor
- Self-holding device for open position upon request
- ATEX version available









Wide range of power clamps meeting the European standards, available in various versions:

- Pneumatic Ø 40 50 63 80 mm
- Pneumatic with hand lever Ø 40 50 63 80 mm
- Manual size 50 63 mm
- Double arm Ø 40 63 mm
- Fully protected version Ø 40 50 63 80 mm





Pneumatic power clamps meeting NAAMS standard (North American Automotive Metric Standard) available in both standard version and version with hand lever:

- Pneumatic Ø 50 63 80 mm
- Pneumatic with hand lever Ø 50 63 80 mm

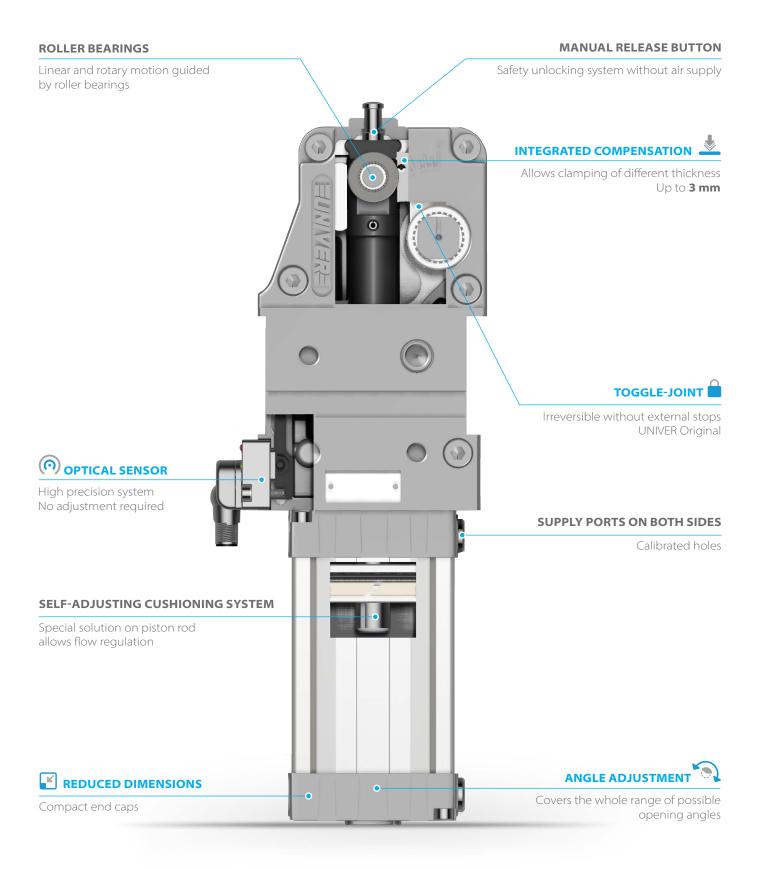




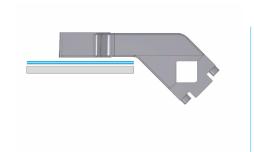
Air saving power clamps assuring a relevant reduction in air consumption without affecting the standard performances required from the market:

- Pneumatic size 32 40 50 63 80 mm
- Pneumatic with hand lever size 32 40 50 63 80 mm
- NAAMS Pneumatic size 50 63 80 mm
- NAAMS Pneumatic with hand lever size 50 63 80 mm

# **POWER CLAMPS FEATURES**









#### INTEGRATED COMPENSATION

The original UNIVER integrated compensation system allows to compensate metal sheet thickness variations up to 3 mm

No need to modify the shims in case of clamping of different metal sheets inside the compensation range





#### OPTICAL SENSOR

Fully metal body

One single sensor for the whole range of products

IP67 protection

M12 swivel connector (0-90°)

High precision

No set up

Two-parts design: electronic part outside the unit (available as spare part), optical part inside the unit (no touch point)

Insensitive to high magnetic fields, typical of new and modern welding systems like aluminium welding

Industry-recognized, tested and proven sensor





#### ANGLE ADJUSTMENT 0°-135°

Stepless adjustment of the opening angle by means of a hex key from the bottom of the clamp

No need to set the sensor

Possibility to reduce the opening angle to the minimum required

One single device covers the whole range of opening angles aimed at stock reduction





### **TOGGLE-JOINT MECHANISM**

The original UNIVER toggle joint system allows the clamp to maintain the position even with lack of air without external stops

Position repeatability

No backlash in closed position

# **COMPLEMENTARY PRODUCTS**



#### **CLAMPING** ARM

Aluminium or Steel
Different offsets for each arm size
NAAMS arms available upon request



#### **PNEUMATIC SENSOR**

Compact design
Fully metal body
Easy to be replaced
One-piece construction



#### **SELF** HOLDING **SYSTEM**

UNIVER original
Suitable for any opening angle
Adjustable holding force



#### **HAND** LEVER

Ergonomic design
Welding debris resistant





# **UANP 50**

Air saving pneumatic power clamps conforming to the NAAMS standard, size 50

AIR SAVING pneumatic power clamps size 50, conforming to the NAAMS standard, with compensation system, toggle-joint mechanism and stepless adjustable opening angle. The special construction enables a relevant reduction in air consumption, without affecting standard performances required from the market.

- Air consumption saving up to 35%
- Reduced dimensions compared to standard power clamps
- Integrated compensation
- Version with hand lever available
- Fully optical electronic sensor
- Fixing pattern on 4 sides
- Manual unlocking in case of air loss
- Drive shaft for wishbone or blade arms

#### **CHARACTERISTICS**

Operating temperature	5° ÷ 45° C
Min./Max. Operating pressure	0,4/0,6 Mpa
Opening angle*	0° ÷ 135°
Size	50
Cylinder bore Ø	40 mm
Holding moment	1250 Nm
Clamping moment (0,5 MPa)	170 Nm
Weight (clamping arm not included)	2,3 Kg
Pneumatic supply ports	1/4 on both sides
Sensor	electronic (optical
Supply voltage	10 ÷ 30 Vdc
IP code	IP65
*The opening angle range may vary according to the arm position and style	



#### **CODIFICATION KEY**



AIR SAVING



COMPENSATION



LIGHTWEIGHT



**IRREVERSIBLE** 



ANGLE ADJUSTMENT



OPTICAL SENSOR



COMPACT



**UA** = BLUECLAMP Power clamps air saving

**STANDARD** 

N = NAAMS Standard

**VERSION** 3 P = Pneumatic

SIZE 4

**50** = Size 50 (Cylinder Ø40 mm)

**ARM POSITION** 

N = No arm



For clamping arms according to NAAMS standard, please contact our Sales Dept.

**SQUARE SHAFT** 6

R = Right side only L = Left side only

N = Both sides

**SENSOR** 7

N = No sensor (with protection plate) K = Electronic sensor PNP, M12 (DF-K)

PORT THREAD 8

G = Gas

PRODUCT REVISION

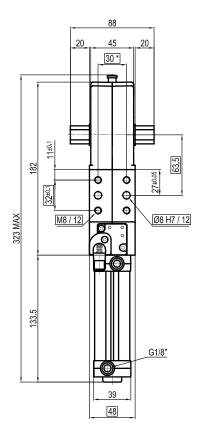
Assigned by UNIVER

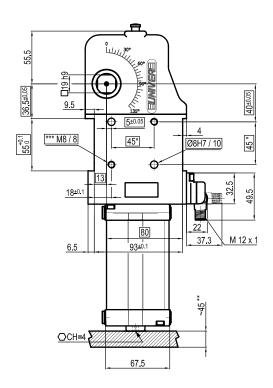
**ATEX** 10

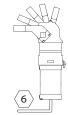
X = ATEX option

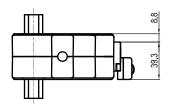
See ATEX Catalogue for types and versions





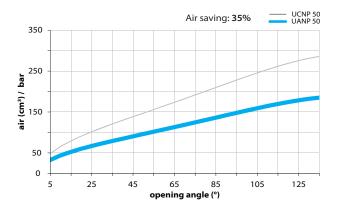






#### Air Consumption per Cycle

Compared with standard version



<sup>\*</sup>TOLERANCE BETWEEN DOWELS  $\pm$  0,02 BETWEEN SCREW HOLES  $\pm$  0,1

<sup>\*\*</sup>AREA TO ACCESS ANGLE ADJUSTMENT \*\*\*SCREW THREAD INSERT

## Sensors



Electronic (optical)

**DF-K** PNP M12 **DF-J** NPN M12 **DF-Y** PNP M12 White LED

## Accessories



Self holding system

**UBK46P19N** For blade arms **UBK46P19ND** For wishbone arms