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

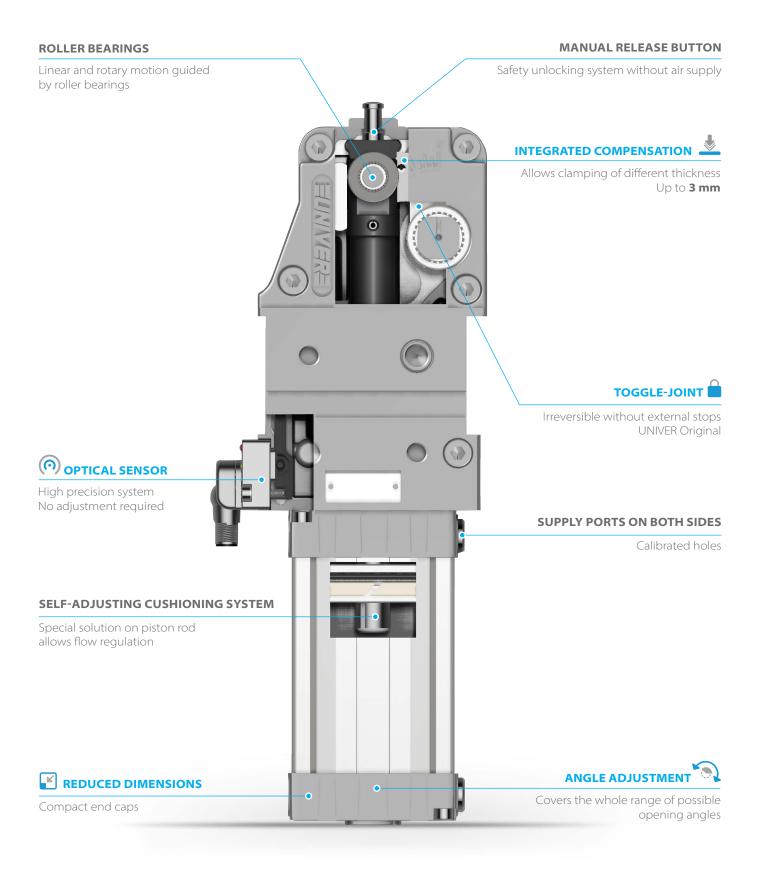




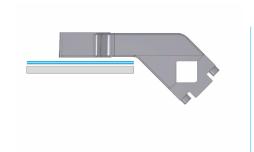
Air saving power clamps assuring a relevant reduction in air consumption without affecting the standard performances required from the market:

- 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





UABP 63

Air saving pneumatic power clamps size 63

AIR SAVING pneumatic power clamps 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 27%
- 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
- · Self-holding system for open position available
- · Clamping arm in aluminium or steel

CHARACTERISTICS

5° ÷ 45° C	Operating temperature		
0,4 / 0,6 MPa	Min./Max. Operating pressure		
0° ÷ 135°	Opening angle*		
63	Size		
50 mm	Cylinder bore Ø		
1750 Nm	Holding moment		
380 Nm	Clamping moment (0,5 MPa)		
3,2 Kg	Weight (clamping arm not included)		
G1/4 on both sides	Pneumatic supply ports		
electronic (optical)	Sensor		
10 ÷ 30 Vdc	Supply voltage		
IP65	IP code		

^{*}The opening angle range may vary according to the arm position and style.

CODIFICATION KEY

AIR SAVING UA | B | P | 63 | O

COMPENSATION



LIGHTWEIGHT



IRREVERSIBLE



ANGLE ADJUSTMENT



OPTICAL SENSOR



COMPACT

SERIES
UA = BLUECLAMP Power clamps

2 STANDARD

air saving

B = European standard

3 VERSION

 ${\bf P} = {\sf Pneumatic}$

4 SIZE 63 = Size 63 (Cylinder Ø50 mm)

ARM POSITION

V = 90°



O = 180°

N = No arm

6

ARM STYLE

10

C = Central, 15 mm offset

D =Right, 15 mm offset

S = Left, 15 mm offset

E = Central, 45 mm offset

F = Right, 45 mm offset

L = Left, 45 mm offset

N = No arm

For other versions contact our Sales Dept.

7 ARM TYPE

 $\mathbf{A} = \mathsf{Aluminium}$

 $\mathbf{S} = \mathsf{Steel}$

N = No arm

SENSOR

8

N = No sensor (with protection plate)

K = Electronic sensor PNP (M12) (DF-K)

 ${\sf J}={\sf Electronic}$ sensor NPN (optical) (DF-J)

 $\mathbf{Y} = \text{Electronic sensor PNP (M12) (DF-Y)}$ white LED

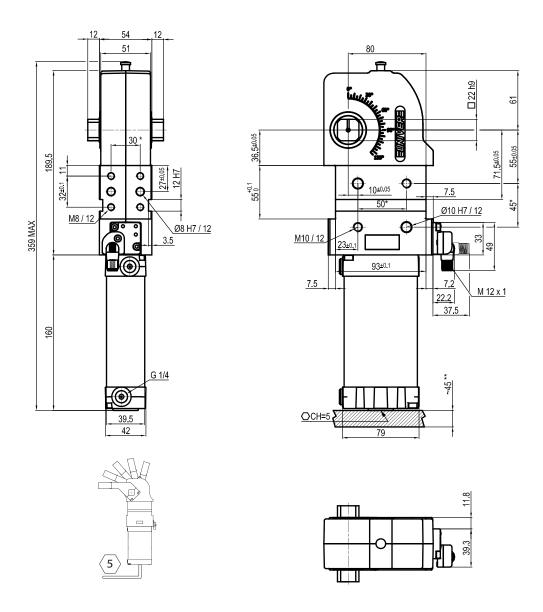
9 PRODUCT REVISION
Assigned by UNIVER

10 ATE

X = ATEX option

See ATEX Catalogue for types and versions

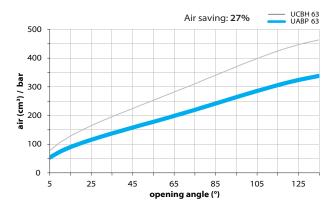




*TOLERANCE BETWEEN DOWELS \pm 0,02 BETWEEN SCREW HOLES \pm 0,1 **AREA TO ACCESS ANGLE ADJUSTMENT

Air Consumption per Cycle

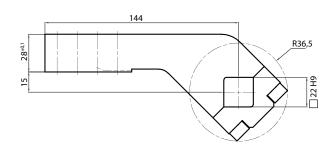
Compared with standard version

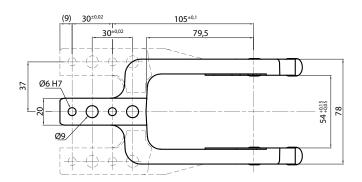




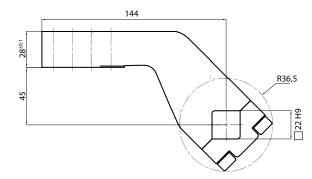
Clamping Arms

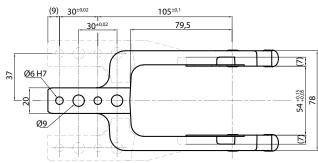
Arm Offset 15mm





Arm Offset 45mm









Armcode	Offset	Material	Arm style	Weight (Kg)	Opening angle (90°)	Opening angle (180°)
UP310151441A	15	ALUMINIUM	CENTRAL	0,3	0÷135°	0÷105°
UP310151442A	15	ALUMINIUM	RIGHT	0,3	0÷135°	0÷105°
UP310151443A	15	ALUMINIUM	LEFT	0,3	0÷135°	0÷105°
UP310151441S	15	STEEL	CENTRAL	1,2	0÷135°	0÷105°
UP310151442S	15	STEEL	RIGHT	1,2	0÷135°	0÷105°
UP310151443S	15	STEEL	LEFT	1,2	0÷135°	0÷105°
UP310451441A	45	ALUMINIUM	CENTRAL	0,3	0÷135°	0÷135°
UP310451442A	45	ALUMINIUM	RIGHT	0,3	0÷135°	0÷135°
UP310451443A	45	ALUMINIUM	LEFT	0,3	0÷135°	0÷135°
UP310451441S	45	STEEL	CENTRAL	1,4	0÷135°	0÷135°
UP310451442S	45	STEEL	RIGHT	1,4	0÷135°	0÷135°
UP310451443S	45	STEEL	LEFT	1,4	0÷135°	0÷135°

Sensors



Electronic (optical)

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

Accessories



Self holding system

UBK46P22