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

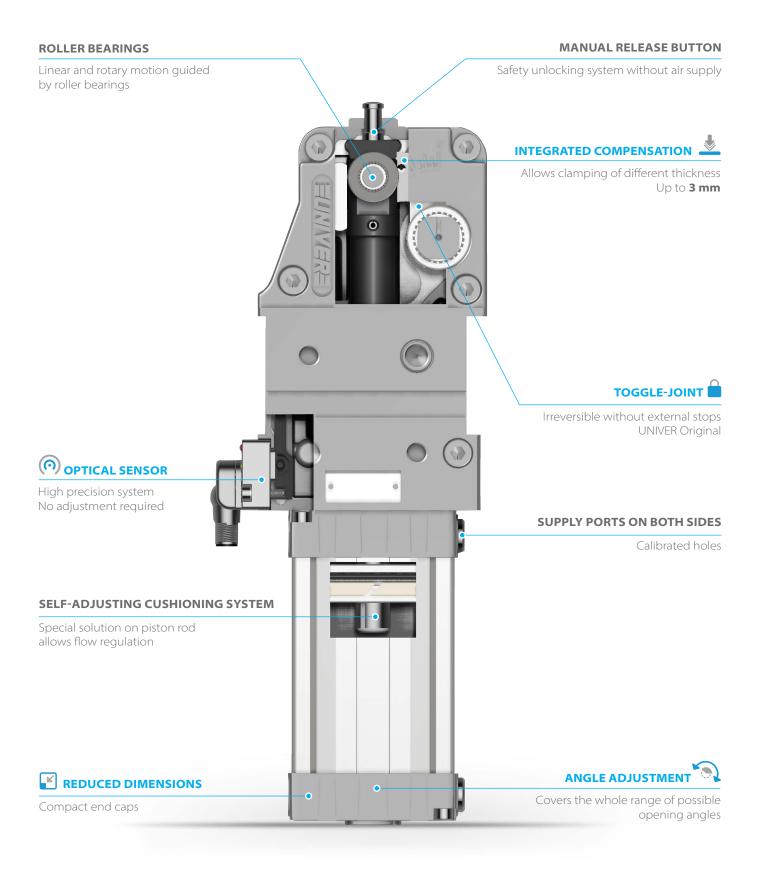




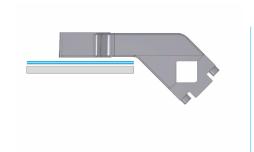
Air saving power clamps assuring a relevant reduction in air consumption without affecting the standard performances required from the market:

- 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







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

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
- · Hand lever mount on both sides
- Fully optical electronic sensor
- Fixing pattern on 4 sides
- Manual unlocking in case of air loss

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)	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.	

The opening angle range may vary according to the arm position and styl



CODIFICATION KEY



AIR SAVING



COMPENSATION



LIGHTWEIGHT



IRREVERSIBLE



ANGLE ADJUSTMENT



OPTICAL SENSOR



COMPACT

UA | N | M | 50 | N | N | K | G | 0 |

SERIES

UA = BLUECLAMP Power clamps air saving

2 STANDARD

N = NAAMS Standard

3 VERSION

M = Pneumatic with hand lever

4 SIZE

50 = Size 50 (Cylinder Ø40 mm)

ARM POSITION

N = No arm



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

6 SQUARE SHAFT

10

R = Right side only L = Left side only

N = Both sides

7 SENSO

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

PORT THREAD

 $\mathbf{G} = \mathsf{Gas}$

9 PRODUCT REVISION

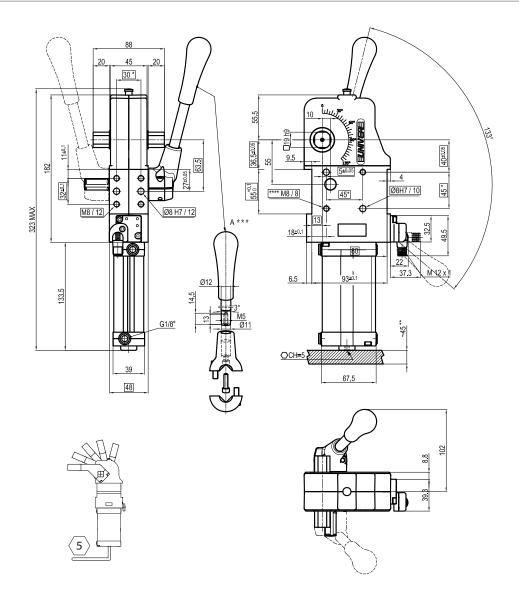
Assigned by UNIVER

10 ATEX

X = ATEX option

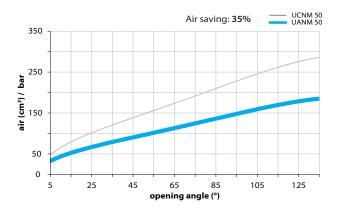
See ATEX Catalogue for types and versions





Air Consumption per Cycle

Compared with standard version



^{*}TOLERANCE BETWEEN DOWELS ± 0,02 BETWEEN SCREW HOLES ± 0,1
**AREA TO ACCESS ANGLE ADJUSTMENT
***DIMENSIONS TO BE RESPECTED IN CASE OTHER MANUAL LEVERS ARE USED
****SCREW THREAD INSERT



Sensors



Electronic (optical)

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

Accessories





Handlever UBF255063

Self holding system

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