

PNEUMATIC POWER CLAMPS

Pneumatic power clamps with compensation system, toggle-joint mechanism and stepless adjustable opening angle, typically 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



UNICLAMP
next generation

MILLIONS OF CYCLES

3 Millions of operations granted with no maintenance required



QR CODE

Helps identify products quickly and easily



LIGHTWEIGHT

Housing in aluminium alloy
The lightest among market equivalent devices



IRREVERSIBLE

A toggle-joint mechanism maintains the position even with air lack



COMPENSATION

Allowing clamping of different thickness





UNICLAMP[®] next generation

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



GLOBAL STANDARD COMPONENTS NAAMS

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



BLUECLAMP[®] air saving

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

ROLLER BEARINGS

Linear and rotary motion guided by roller bearings

MANUAL RELEASE BUTTON

Safety unlocking system without air supply

INTEGRATED COMPENSATION



Allows clamping of different thickness
Up to **3 mm**

TOGGLE-JOINT



Irreversible without external stops
UNIVER Original

OPTICAL SENSOR

High precision system
No adjustment required

SUPPLY PORTS ON BOTH SIDES

Calibrated holes

SELF-ADJUSTING CUSHIONING SYSTEM

Special solution on piston rod
allows flow regulation

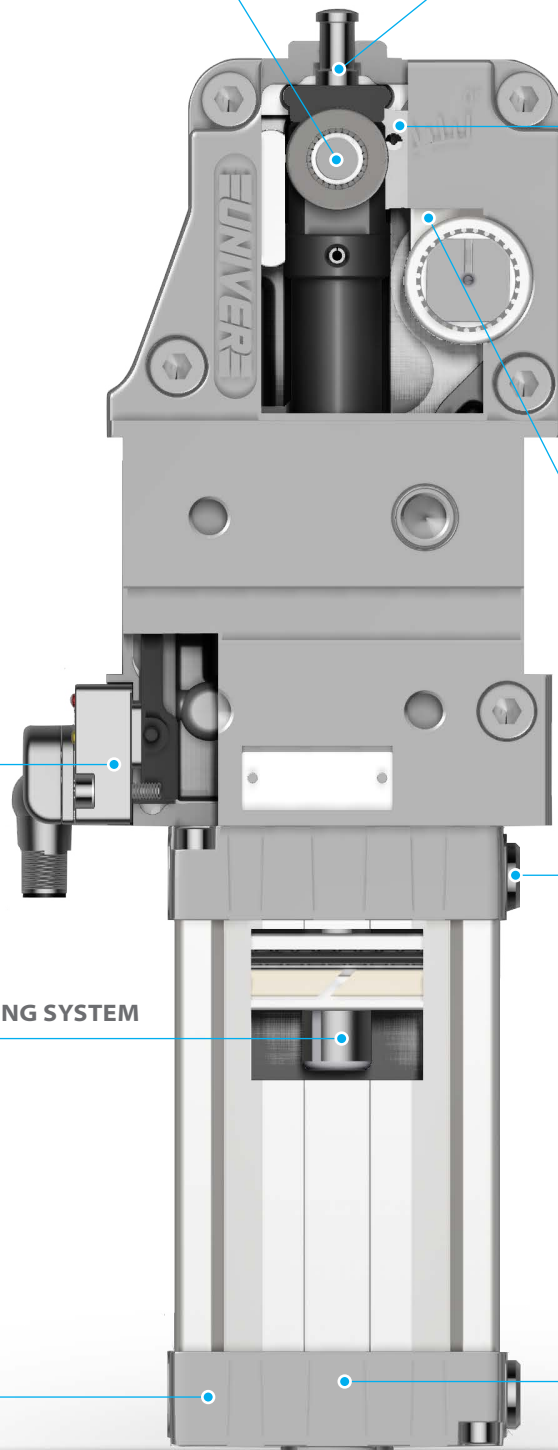
REDUCED DIMENSIONS

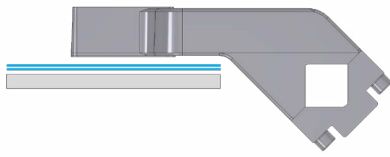
Compact end caps

ANGLE ADJUSTMENT



Covers the whole range of possible
opening angles





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°)

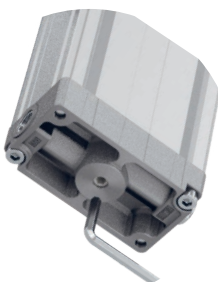
High precision

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



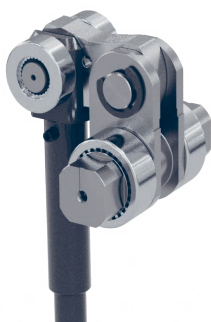
ANGLE ADJUSTMENT 0°-135°

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

UCBM 40

Pneumatic power clamps Ø40 mm with hand lever

Pneumatic power clamps with compensation system, toggle-joint mechanism and stepless adjustable opening angle, typically used for handling and holding metal sheets in welding applications

- Lightweight aluminium construction ideal for mounting on grippers
- Compact dimensions
- Integrated compensation system up to 2 mm
- Hand lever mount on both sides
- Fully optical electronic sensor or pneumatic 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

| | |
|------------------------------------|----------------------|
| Operating temperature | 5° ÷ 45° C |
| Min./Max. Operating pressure | 0,4 / 0,6 MPa |
| Opening angle* | 0° ÷ 135° |
| Bore Ø | 40 mm |
| Holding moment | 600 Nm |
| Clamping moment (0,5 MPa) | 170 Nm |
| Weight (clamping arm not included) | 1,8 Kg |
| Pneumatic supply ports | G1/8 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

| | | | | | | | | | |
|----|---|---|----|---|---|---|---|---|----|
| UC | B | M | 40 | O | E | A | K | 0 | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |



COMPENSATION



LIGHTWEIGHT



IRREVERSIBLE



ANGLE ADJUSTMENT



OPTICAL SENSOR



COMPACT

1

SERIES

UC = UNICLAMP Power clamps

2

STANDARD

B = European standard

3

VERSION

M = Pneumatic with hand lever

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SIZE

40 = Ø40 mm

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ARM POSITION

V = 90°



O = 180°



N = No arm



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ARM STYLE

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.

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ARM TYPE

A = Aluminium

S = Steel

N = No arm

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SENSOR

N = No sensor (with protection plate)

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

D = Pneumatic sensor (DF-UPNW)

J = Electronic sensor NPN, optical (DF-J)

Y = Electronic sensor PNP, M12 (DF-Y) white LED

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PRODUCT REVISION

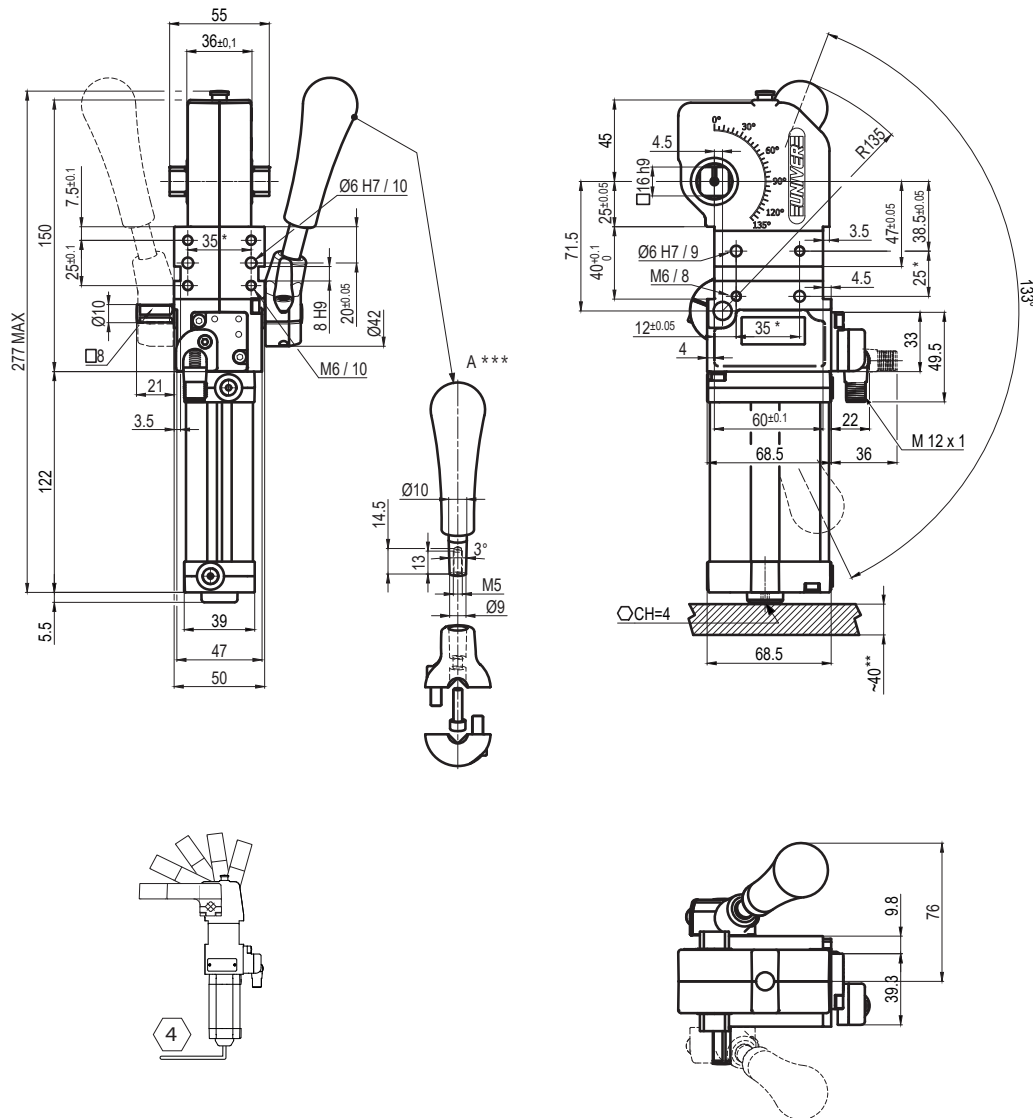
Assigned by UNIVER

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ATEX

X = ATEX option

See ATEX Catalogue for types and versions



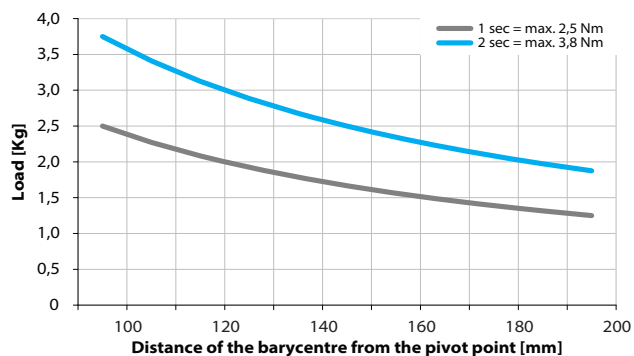
*TOLERANCE BETWEEN DOWELS $\pm 0,02$ BETWEEN SCREW HOLES $\pm 0,1$

**AREA TO ACCESS ANGLE ADJUSTMENT

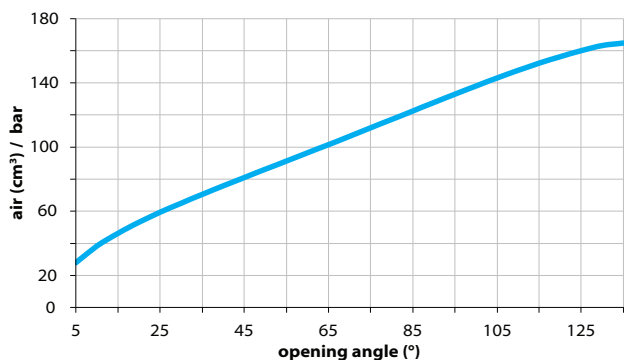
***DIMENSIONS TO BE RESPECTED IN CASE OTHER HAND LEVERS ARE USED

Maximum Applicable Load

Pressure: 5 bar - 90° cycle time (Open - Close)

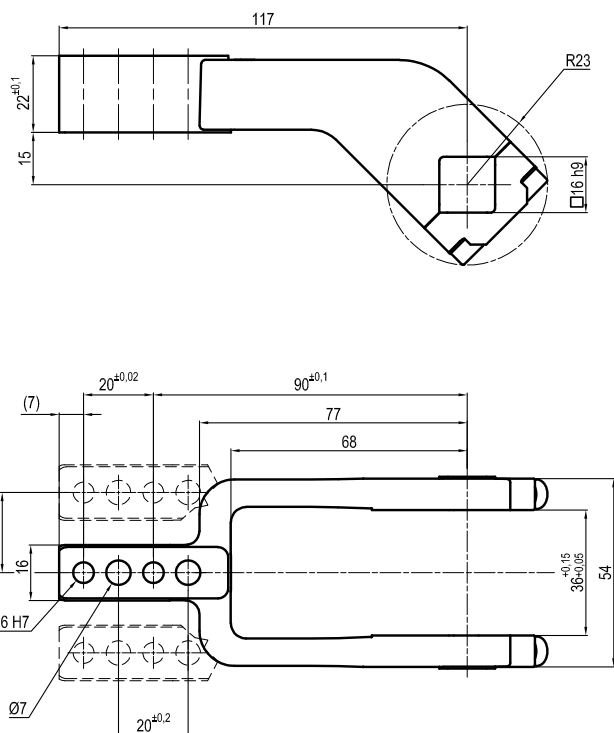


Air Consumption per Cycle

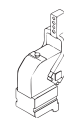
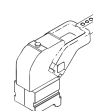
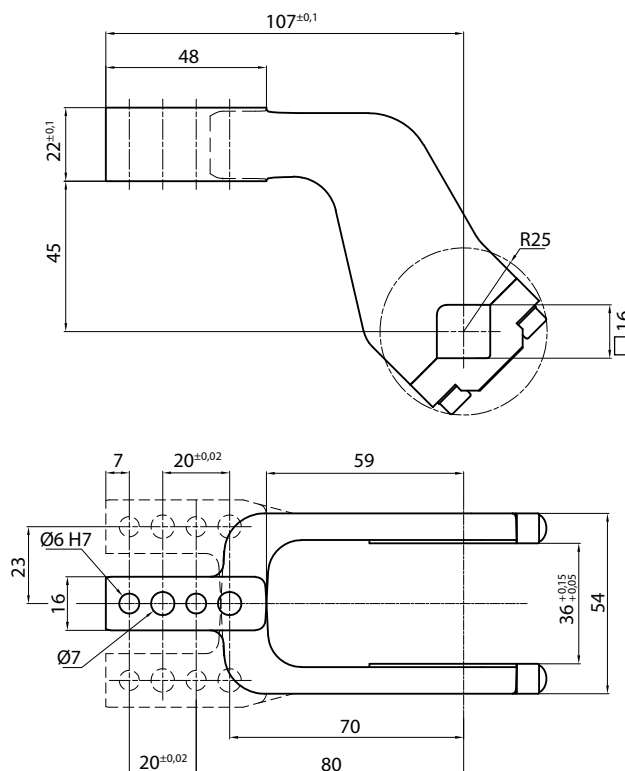


Clamping Arms

Arm Offset 15mm



Arm Offset 45mm



| Armcode | Offset | Material | Arm style | Weight (Kg) | Opening angle (90°) | Opening angle (180°) |
|--------------|--------|-----------|-----------|-------------|---------------------|----------------------|
| LKP01CST | 15 | ALUMINIUM | CENTRAL | 0,2 | 0÷135° | 0÷125° |
| LKP01DST | 15 | ALUMINIUM | RIGHT | 0,2 | 0÷135° | 0÷125° |
| LKP01SST | 15 | ALUMINIUM | LEFT | 0,2 | 0÷135° | 0÷125° |
| UP120151441S | 15 | STEEL | CENTRAL | 0,4 | 0÷135° | 0÷125° |
| UP120151442S | 15 | STEEL | RIGHT | 0,4 | 0÷135° | 0÷125° |
| UP120151443S | 15 | STEEL | LEFT | 0,4 | 0÷135° | 0÷125° |
| UKP01E | 45 | ALUMINIUM | CENTRAL | 0,25 | 0÷125° | 0÷135° |
| UKP01F | 45 | ALUMINIUM | RIGHT | 0,25 | 0÷125° | 0÷135° |
| UKP01L | 45 | ALUMINIUM | LEFT | 0,25 | 0÷125° | 0÷135° |
| UKP01ES | 45 | STEEL | CENTRAL | 0,4 | 0÷125° | 0÷135° |
| UKP01FS | 45 | STEEL | RIGHT | 0,4 | 0÷125° | 0÷135° |
| UKP01LS | 45 | STEEL | LEFT | 0,4 | 0÷125° | 0÷135° |

Sensors



Electronic (optical)

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



Pneumatic

DF-UPNW

Accessories



Handlever

UBF2540



Self holding system

UBK46P16 For arm 15 offset
UBK46P16-45 For arm 45 offset