

82M-4E

Enclosed Pneumatic Power Clamps | Heavy-Duty Modular | Ordering Information

82M-4

E

03

H0

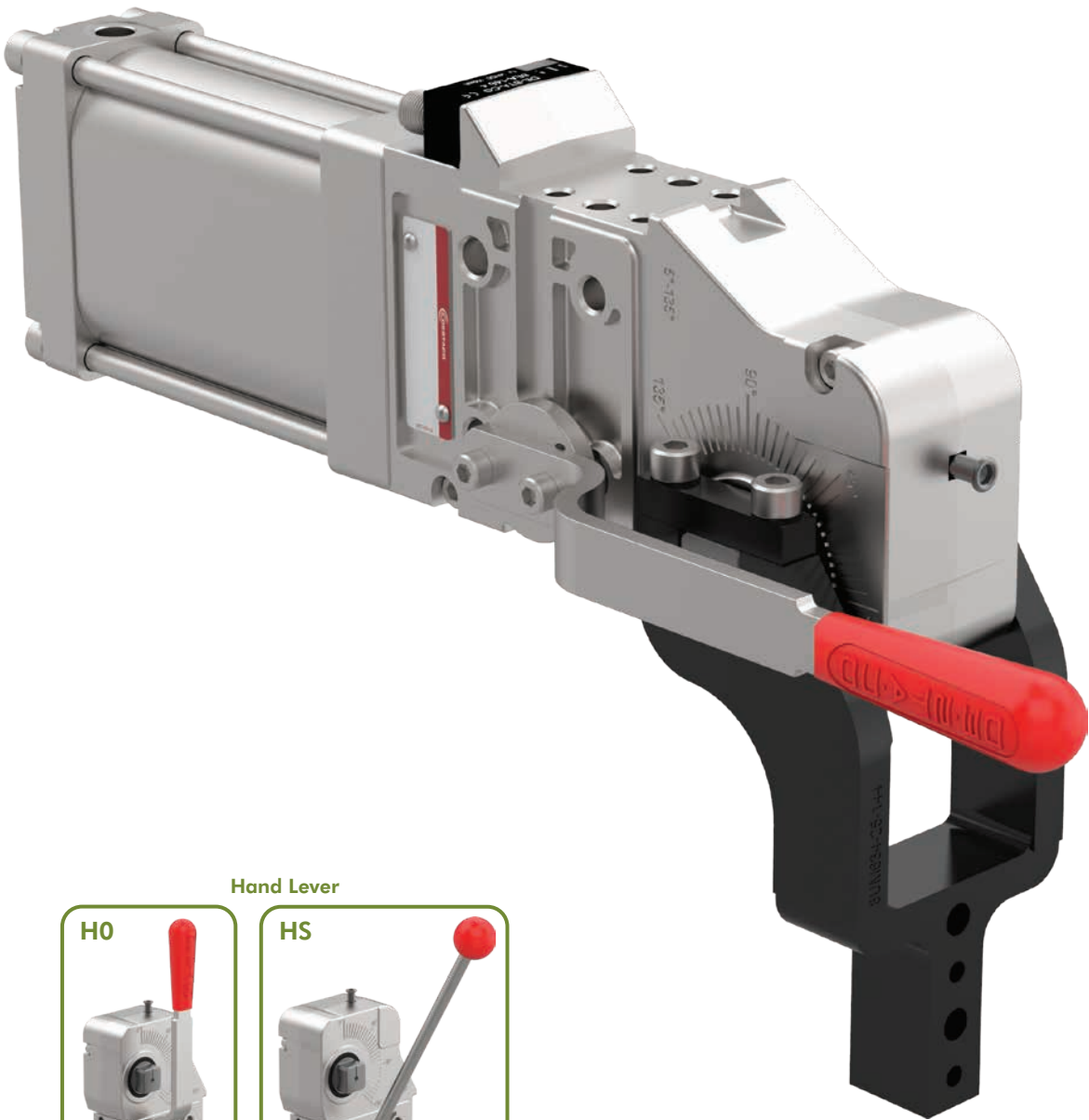
63

L8

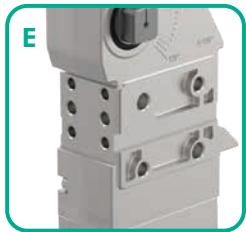
Mounting
E Standard Mounting

Clamp Arm Shaft
03 for U-Arms
23 for Lateral Arms
See below for further details

Hand Lever
00 No Hand lever
H0 Hand Lever
HS Weldable
See below for further details



Mounting



Clamp Arm Shaft



Size	Shaft Length (L17)
40	9 mm [0.35 in]
50	12 mm [0.47 in]
63	12 mm [0.47 in]



Size	Shaft Length (L17)
40	16 mm [0.63 in]
50	21 mm [0.83 in]
63	21 mm [0.83 in]

Hand Lever



Hand Lever	Description
00	No Hand Lever
H0	Standard Hand Lever
HS	Weldable Hand Lever

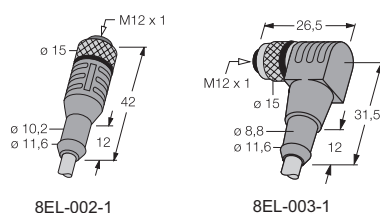
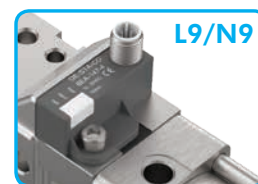
Shown with U-Arm
8UM634-25-144
(order separately)

Enclosed Pneumatic Power Clamps | Heavy-Duty Modular | Ordering Information

Sensor	Description
00	Without Sensing System
L8	PNP Sensor with In-line M12x1 Connector (8EA-146-4)
N8	PNP Sensor with In-line M12x1 Connector (8EA-154-4)
L9	PNP Sensor with 90° M12x1 Connector (8EA-147-4)
N9	NPN Sensor with 90° M12x1 Connector (8EA-155-4)
K8	PNP Sensor with M12x1 Cable Connector (8EA-158-4)
K9	NPN Sensor with M12x1 Cable Connector (8EA-167-4)

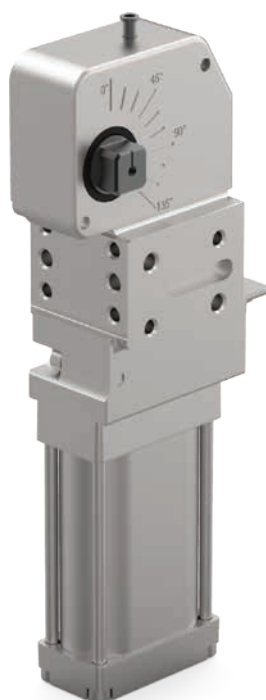
Sensor Cables Order separately

Order No.	Description
8EL-002-1	M12x1, Straight, 5-pin Connector with 5 m [16 ft] Cable
8EL-003-1	M12x1, Angular, 4-pin Connector with 5 m [16 ft] Cable



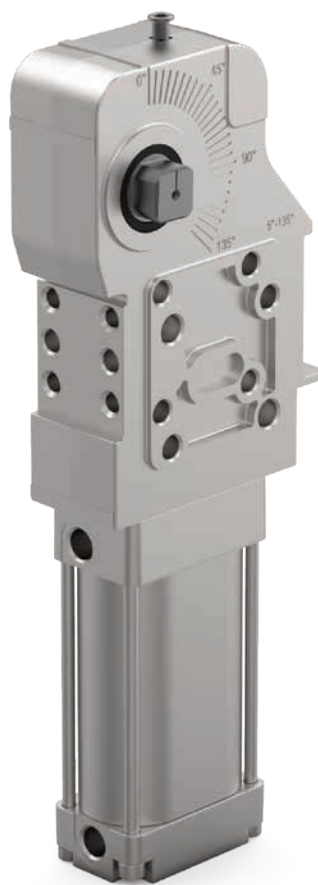
Cylinder - Standard

- 40 40 mm Cylinder (G1/8 Port)
- 50 50 mm Cylinder (G1/4 Port)
- 63 63 mm Cylinder (G1/4 Port)



40

Max Holding Torque
380 Nm [280 ft-lb]
Max Clamping Torque
120 Nm [89 ft-lb]
at 5 bar [72 psi]



50

Max Holding Torque
1300 Nm [959 ft-lb]
Max Clamping Torque
270 Nm [199 ft-lb]
at 5 bar [72 psi]



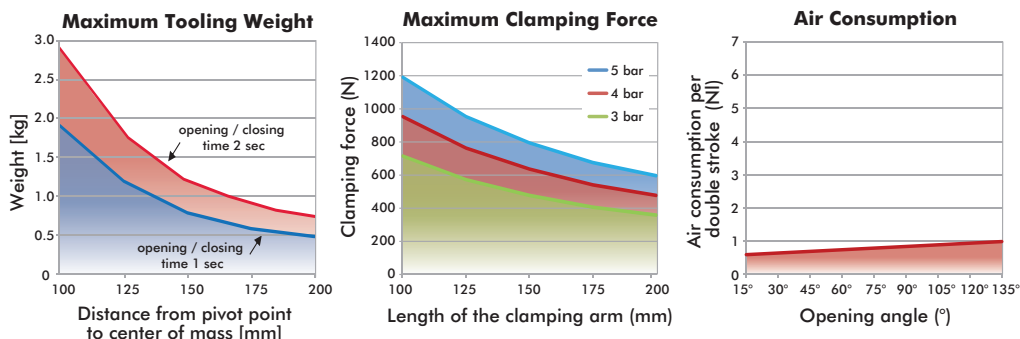
63

Max Holding Torque
1800 Nm [1328 ft-lb]
Max Clamping Torque
420 Nm [310 ft-lb]
at 5 bar [72 psi]

82M-4E

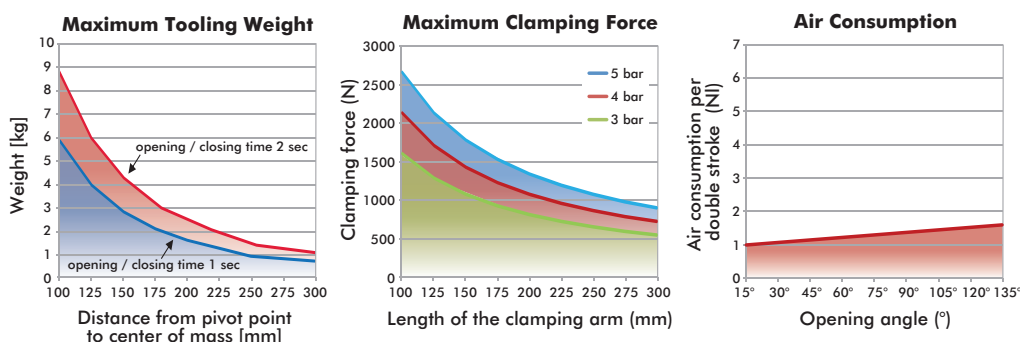
Enclosed Pneumatic Power Clamps | Heavy-Duty | Technical Specifications

Model	Max. Holding Torque (Nm)	Clamping Torque at 5 bar (Nm)	Cylinder Ø (mm)	Weight (kg)	Air Consumption per double stroke at 5 bar (liter)
82M-4E....40..	380	120	40	1,5	0,9



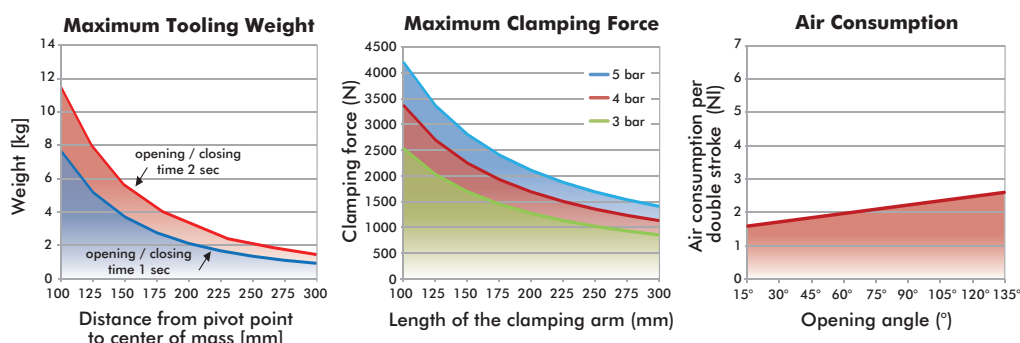
ATTENTION: Calculation tool available. Please consult factory.

Model	Max. Holding Torque (Nm)	Clamping Torque at 5 bar (Nm)	Cylinder Ø (mm)	Weight (kg)	Air Consumption per double stroke at 5 bar (liter)
82M-4E....50..	1300	270	50	2,5	1,6



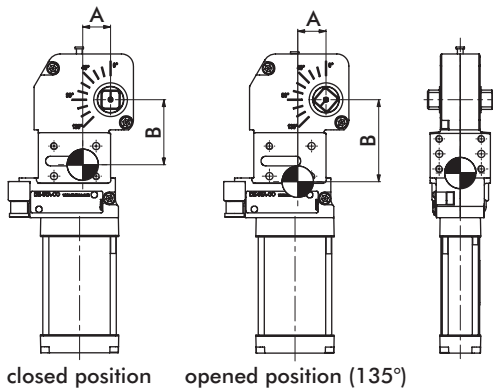
ATTENTION: Calculation tool available. Please consult factory.

Model	Max. Holding Torque (Nm)	Clamping Torque at 5 bar (Nm)	Cylinder Ø (mm)	Weight (kg)	Air Consumption per double stroke at 5 bar (liter)
82M-4E....63..	1800	420	63	3,6	2,6

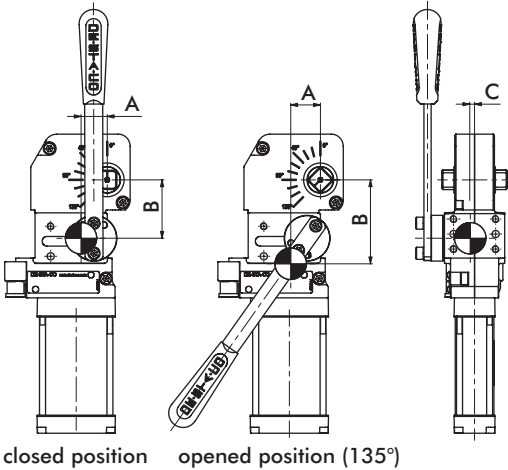


ATTENTION: Calculation tool available. Please consult factory.

Center of Mass

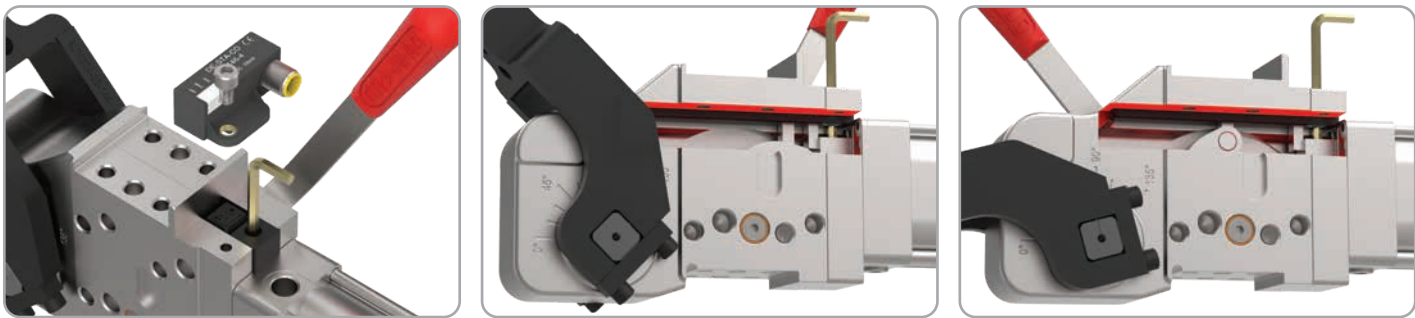


Model	Without Handle				Weight
	A Closed	A Open	B Closed	B Open	
82M-4E....40..	23	23	55	69	1,5
82M-4E....50..	24	24	72	90	2,5
82M-4E....63..	26	27	91	109	3,6



Model	With Handle					Weight
	A Closed	A Open	B Closed	B Open	C	
82M-4E....40..	21	25	46	72	5	1,8
82M-4E....50..		30	65	89		2,8
82M-4E....63..	24		84	108	4	3,9

Adjusting the Arm Opening Angle

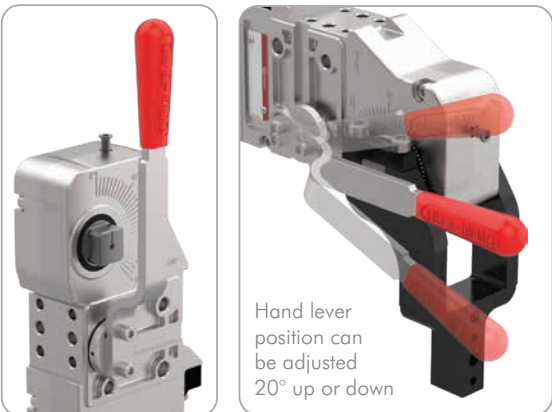


Easily adjust arm opening angle with an M5 Allen wrench.

- Move clamp arm to full open position.
- Remove sensor from clamp housing.
- Using Allen wrench, release mechanism (leave Allen wrench in place).
- Move clamp arm to desired opening.
- Tighten to 15 Nm.

Enclosed Power Clamp Hand Lever

Standard Adjustable Hand Lever



- Hand lever position is adjustable for improved ergonomics
- Handle can be mounted on the left or right side

Weldable Hand Lever



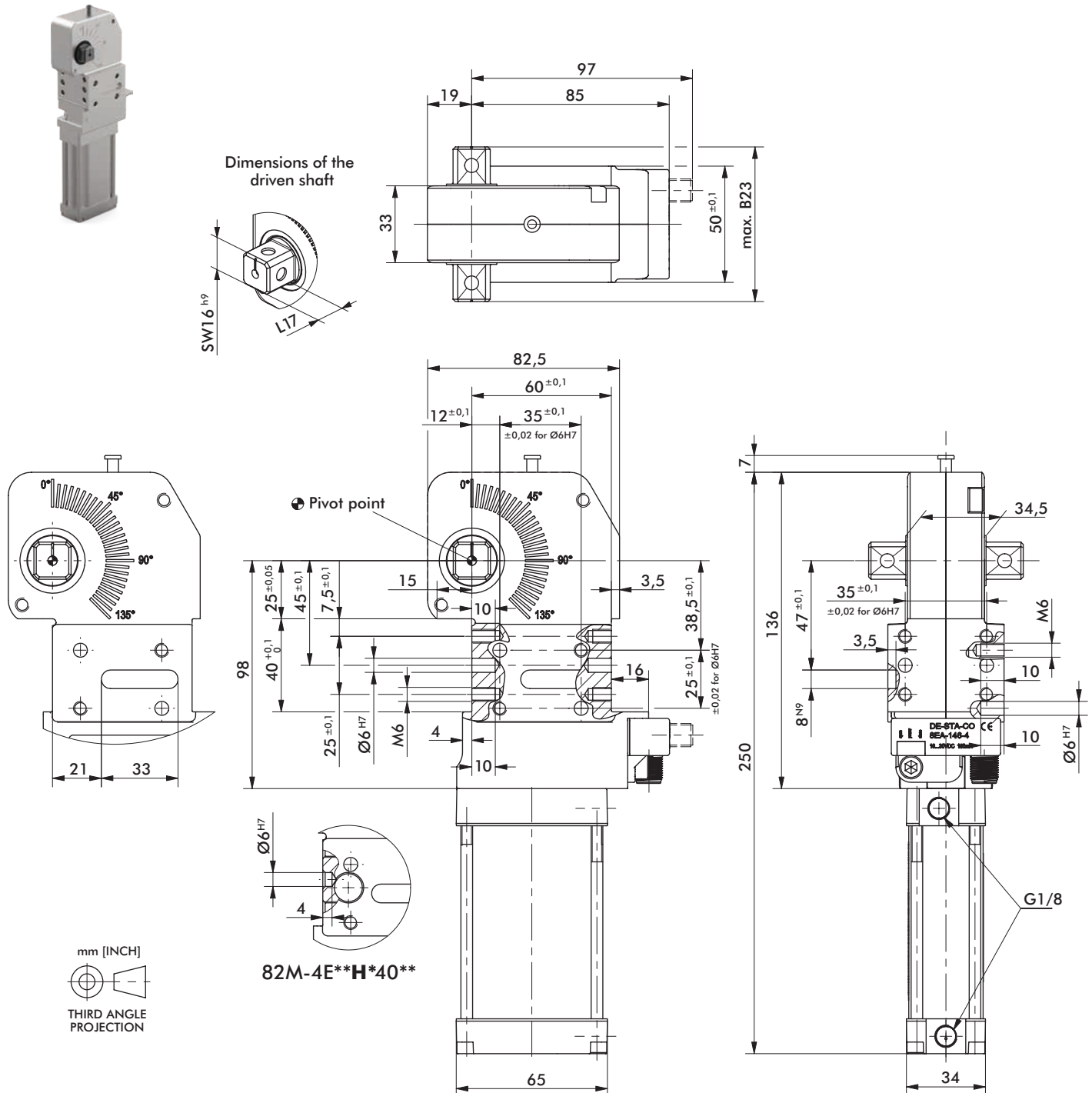
- Hand lever can be welded into a permanent position.
- Handle can be mounted on the left or right side

82M-4E, 40MM

Enclosed Pneumatic Power Clamps | Heavy-Duty Modular | Dimensions

82M-4E...40

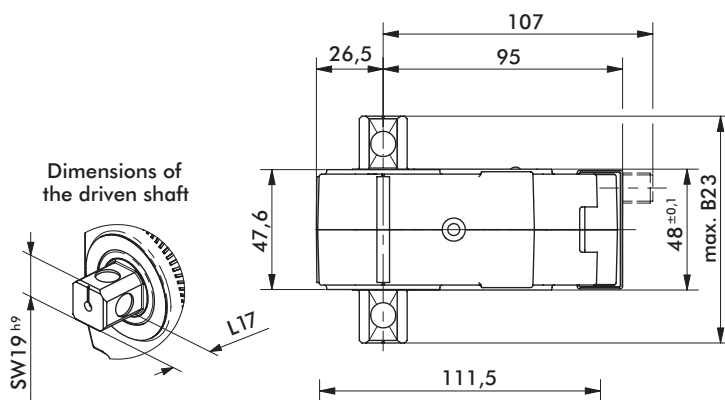
Model	B23 Max.	L17
82M-4E03..40..	54,5	9
82M-4E23..40..	66,5	16



Power by compressed air, max. 6 bar operation with oil-free air is permissible.
The connector socket and the cable are not supplied with the unit.

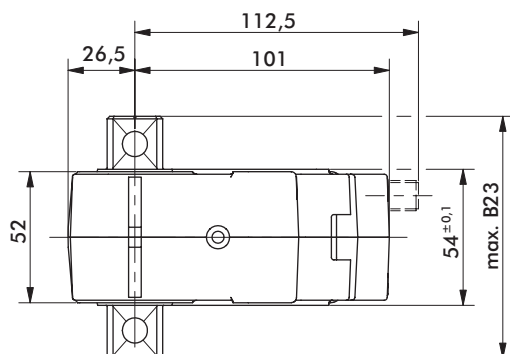
Enclosed Pneumatic Power Clamps | Heavy-Duty Modular | Cylinder Options Dimensions

Dimensions of the driven shaft

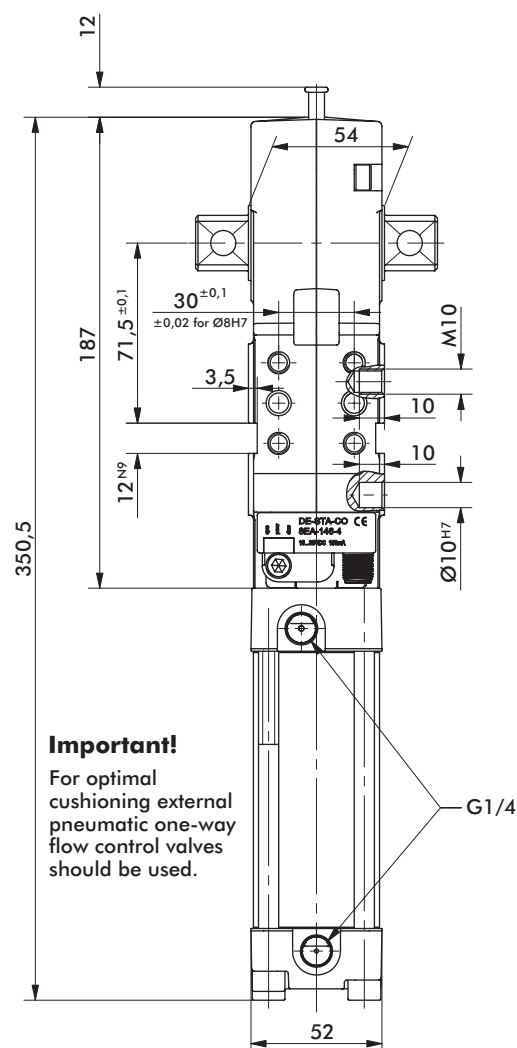
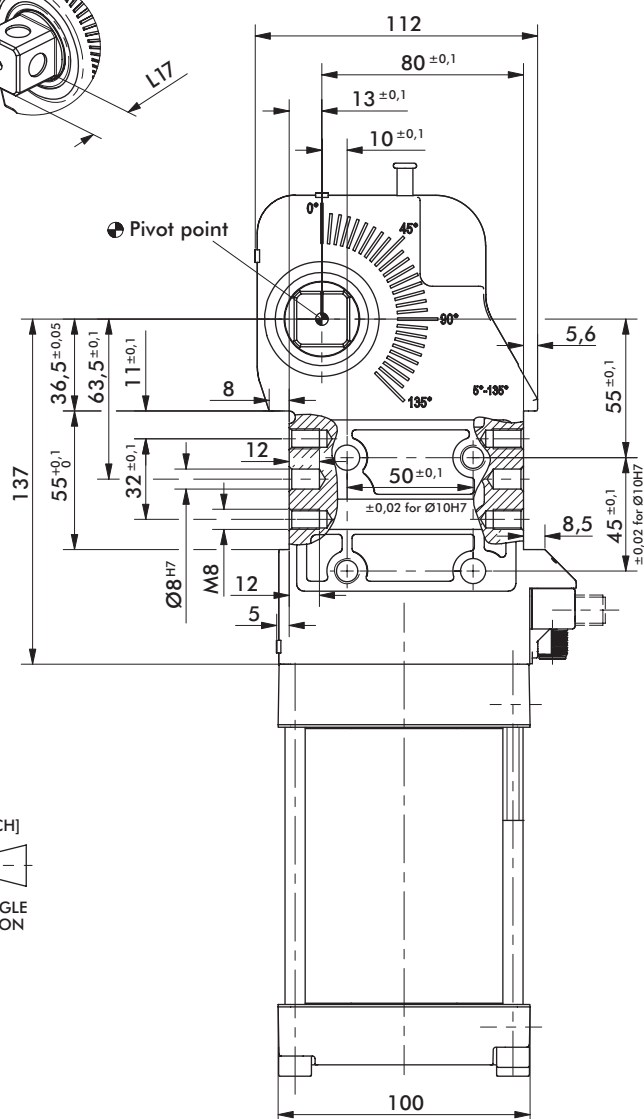
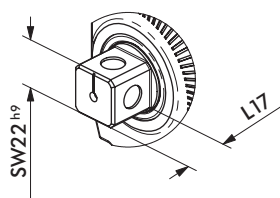


Pneumatic Power Clamps | Dimensions and Technical Specifications

Model	B23 Max.	L17
82M-4E03..63..	78	12
82M-4E23..63..	96	21



Dimensions of the driven shaft



For optimal cushioning external pneumatic one-way flow control valves should be used.

Power by compressed air, max. 6 bar operation with oil-free air is permissible.
The connector socket and the cable are not supplied with the unit.

82M-4E ACCESSORIES

Pneumatic Power Clamps | Dimensions and Technical Specifications

Attention!

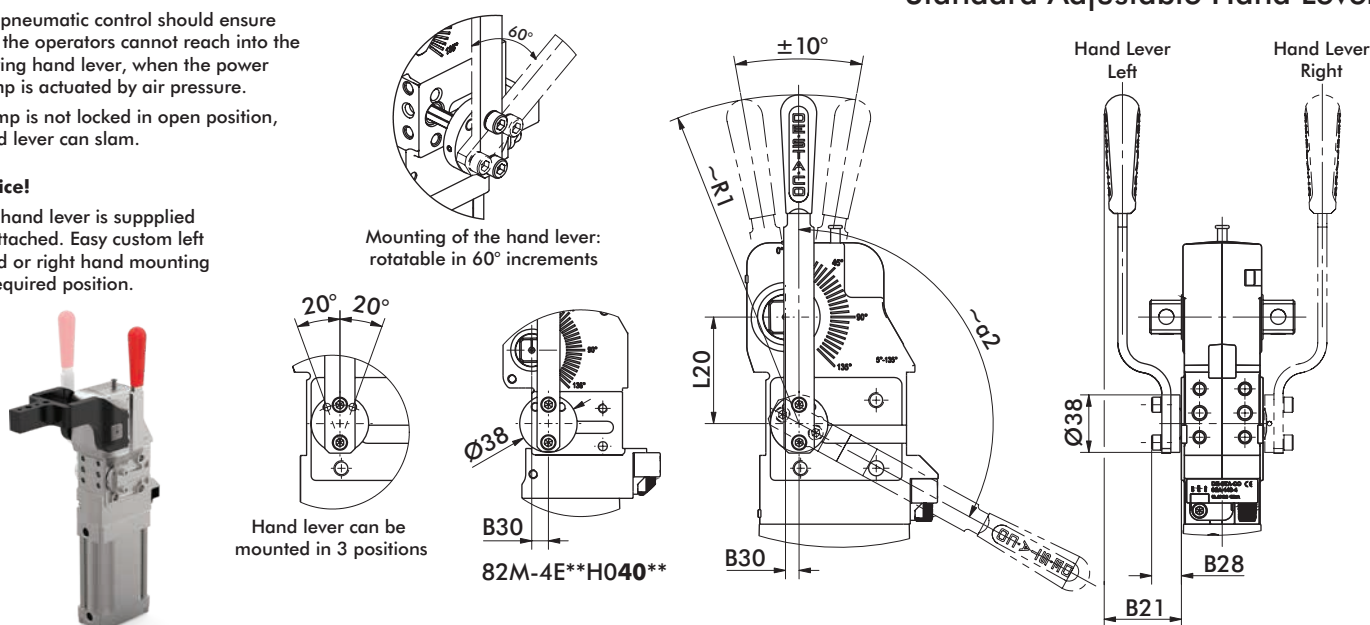
The pneumatic control should ensure that the operators cannot reach into the moving hand lever, when the power clamp is actuated by air pressure.

Clamp is not locked in open position, hand lever can slam.

Notice!

The hand lever is supplied unattached. Easy custom left hand or right hand mounting in required position.

Standard Adjustable Hand Lever



Attention!

The pneumatic control should ensure, that the operators cannot reach into the moving hand lever, when the power clamp is actuated by air pressure.

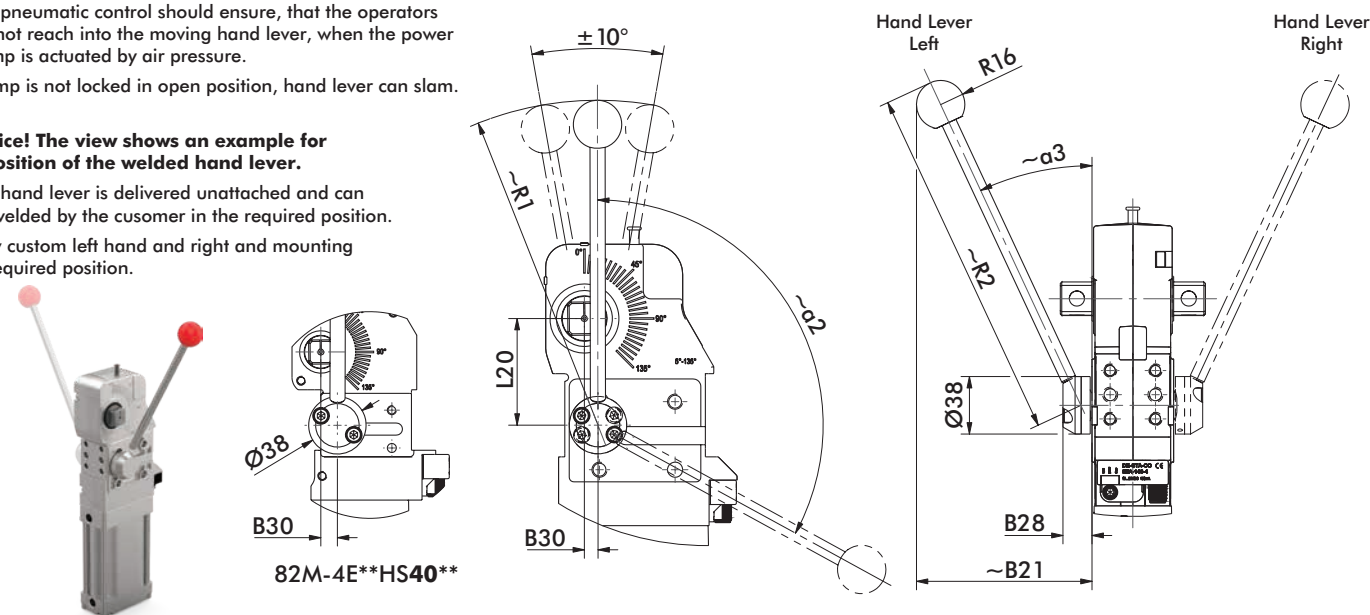
Clamp is not locked in open position, hand lever can slam.

Notice! The view shows an example for a position of the welded hand lever.

The hand lever is delivered unattached and can be welded by the customer in the required position.

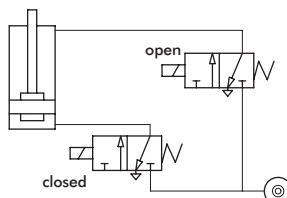
Easy custom left hand and right hand mounting in required position.

Weldable Hand Lever



Wiring Diagram

Pneumatic circuit required for manual and pneumatic actuation.



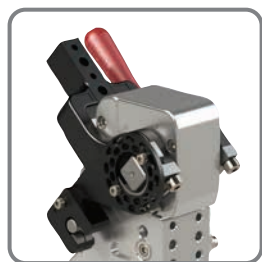
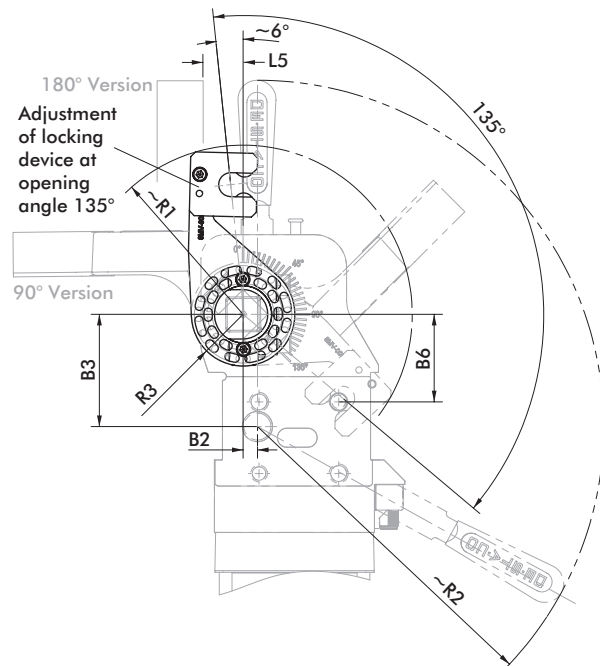
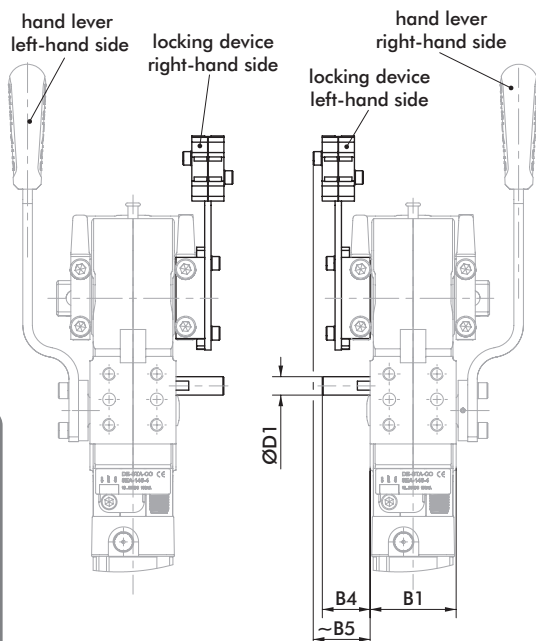
Model No.	B21	B28	B30	L20	~R1	~R2	~a3	Swivel Angle α_2 (with reference to opening angle of clamp arm)									
								0°	15°	30°	45°	60°	75°	90°	105°	120°	135°
82M-4E.3H040..	27	24	11	48,5	160	--	--	0°	31°	41°	49°	58°	69°	88°	113°	134°	145°
82M-4E.3HS40..	109	23				183	30°										
82M-4E.3H050..	52	20	7	70	218	--	--	-1°	30°	39°	46°	53°	61°	70°	81°	92°	103°
82M-4E.3HS50..	117				215	236	25°										
82M-4E.3H063..	52		9	70,5	218	--	--	0°	30°	39°	47°	56°	66°	79°	94°	108°	119°
82M-4E.3HS63..	117				215	236	25°										

82M-4E ACCESSORIES, U-ARMS CENTER (ALUMINUM)

Enclosed Pneumatic Power Clamps | Heavy-Duty Modular | Dimensions and Technical Specifications

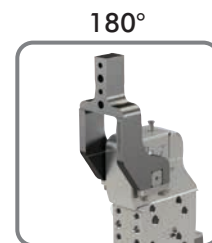
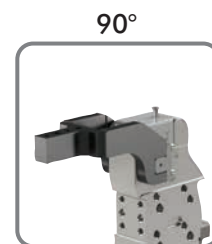
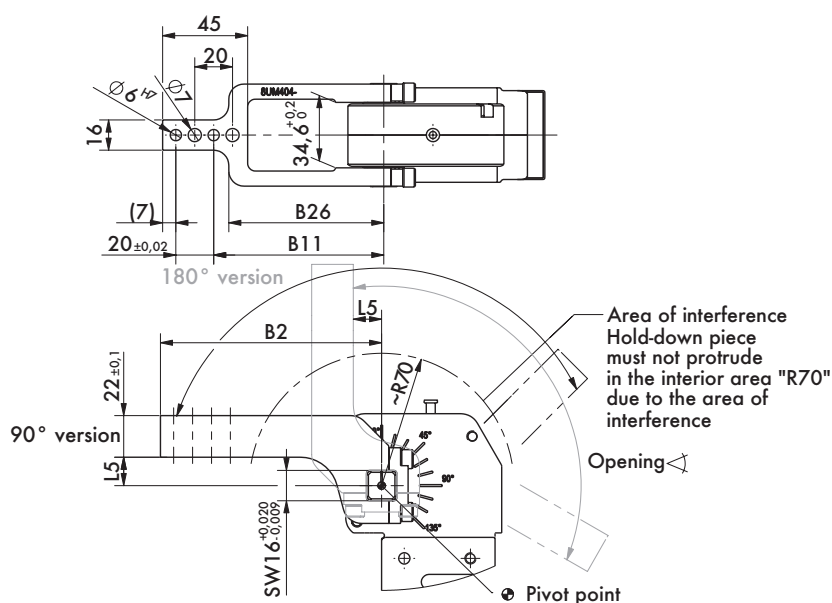
Locking Device for Hand Lever

Situation of Installation:



Order No.	For Model	B1	B2	B3	B4	B5	B6	ØD1	R1	R2	R3	Limited Setting Options					
												Height of the clamping arm: L5 max.					
												90° version		180° version			
82ZB-162-1	82M-4E..H040..	50	11	48,5	25	31	38,5	10,5	81	160	27	45	75	00	15	25	45
82ZB-084-1	82M-4E..H050..	48	7	70	30	36	55	11,5	107	218	32,5	120°	—	—	105°	120°	—
82ZB-039-1	82M-4E..H063..	54	9	70,5	30	36	55	11,5	107	210	32,5	110°	105°	—	105°	120°	—

U-Arms Center for Size 40mm



8UM404-00-117
8UM404-15-117
8UM404-25-117
8UM404-45-107

Arm Model No.	Max. Opening 90° Version	Max. Opening 180° Version	Weight (kg)	B2	B11 ±0,1	B26	L5
8UM404-00-117		105°	0,23				0
8UM404-15-117	135°	120°	0,24	117	90	82	15
8UM404-25-117			0,25				25
8UM404-45-107	130°	135°	0,24	107	80	72	45

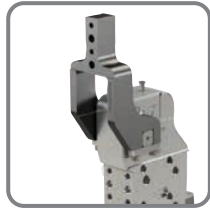
82M-4E U-ARMS CENTER (ALUMINUM)

Enclosed Pneumatic Power Clamps | Heavy-Duty Modular | Dimensions and Technical Specifications

U-Arms Center for Size 50mm

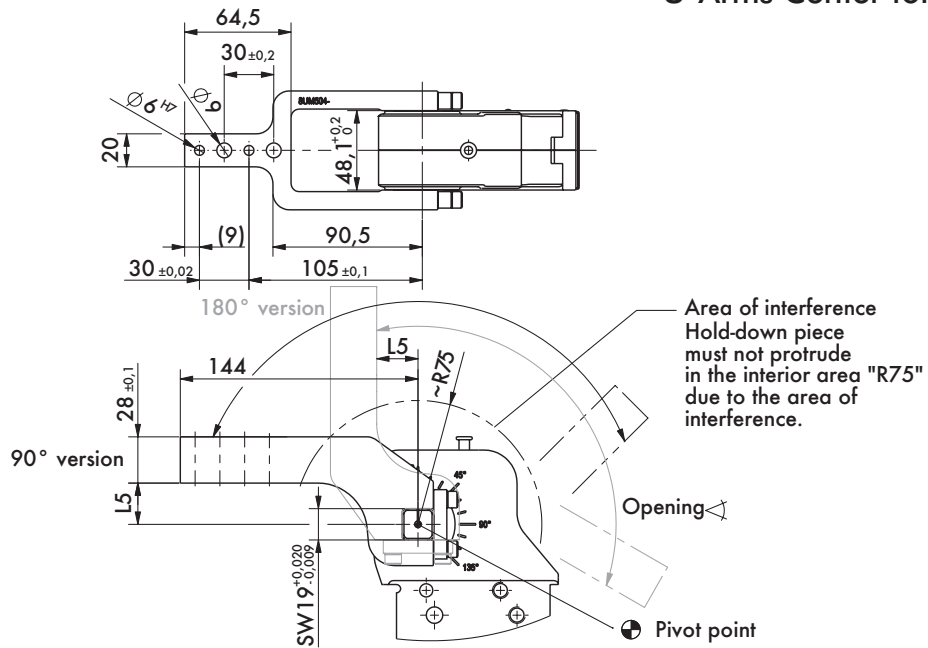


90°



180°

8UM504-15-144
8UM504-25-144
8UM504-45-144

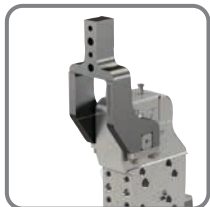


Arm Model No.	Max. Opening 90° Version	Max. Opening 180° Version	Weight (kg)	L5
8UM504-15-144	135°	105°	0,44	15
8UM504-25-144		120°	0,45	25
8UM504-45-144		135°	0,48	45

U-Arms Center for Size 63mm

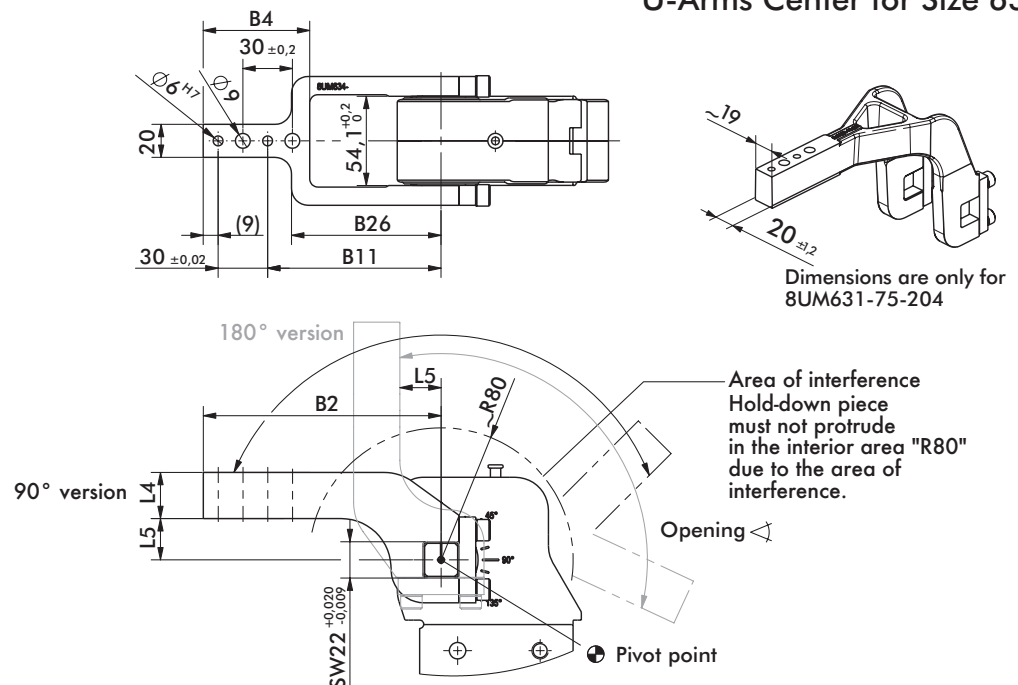


90°



180°

8UM634-15-144
8UM634-25-144
8UM634-45-144
8UM631-75-204*



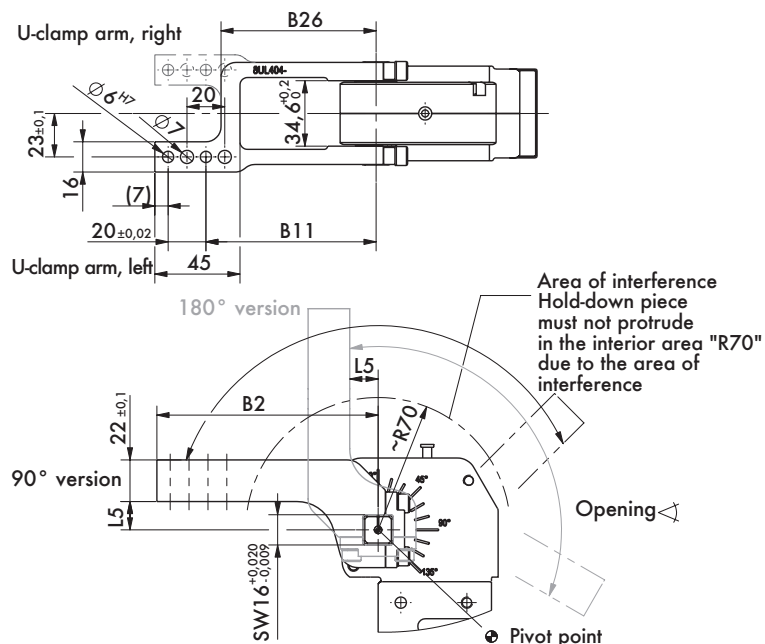
Arm Model No.	Max. Opening 90° Version	Max. Opening 180° Version	Weight (kg)	B2	B4	B11 ±0,1	B26	L4 ±0,1	L5
8UM634-15-144	135°	105°	0,50						15
8UM634-25-144		120°	0,53	144	64,5	105	90,5	28	25
8UM634-45-144			0,56						45
8UM631-75-204*		135°	1,7	204	82	165	107	30	75

*only steel version available.

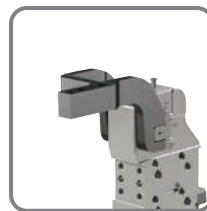
82M-4E U-ARMS OFFSET (ALUMINUM)

Enclosed Pneumatic Power Clamps | Heavy-Duty Modular | Dimensions and Technical Specifications

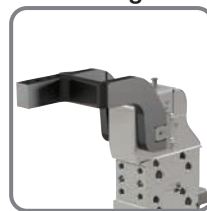
U-Arms Offset for Size 40mm



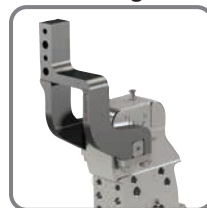
90° Left



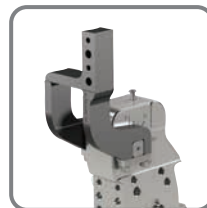
90° Right



180° Right*



180° Left*



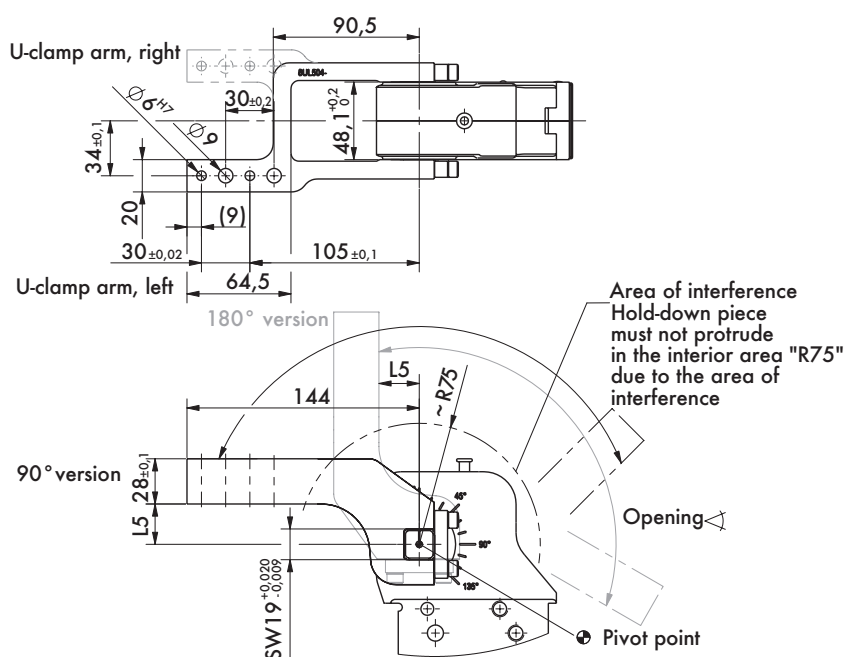
8UL404-00-117
8UL404-15-117
8UL404-25-117
8UL404-45-107

8UR404-00-117
8UR404-15-117
8UR404-25-117
8UR404-45-107

*90° left/180° right uses same clamp arm.
90° right/180° left uses same clamp arm.

Arm Model No.	Max. Opening 90° Version	Max. Opening 180° Version	Weight (kg)	B2	B11 ±0,1	B26	L5
8U(•)404-00-117	135°	105°	0,23	117	90	82	0
8U(•)404-15-117		120°	0,24				15
8U(•)404-25-117		135°	0,25				25
8U(•)404-45-107	130°		0,25	107	80	72	45

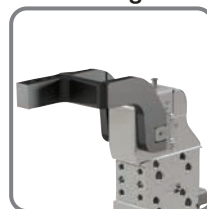
U-Arms Offset for Size 50mm



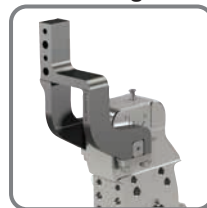
90° Left



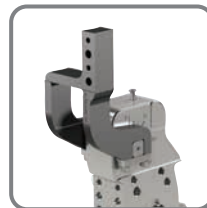
90° Right



180° Right*



180° Left*



8UL504-15-144
8UL504-25-144
8UL504-45-144

8UR504-15-144
8UR504-25-144
8UR504-45-144

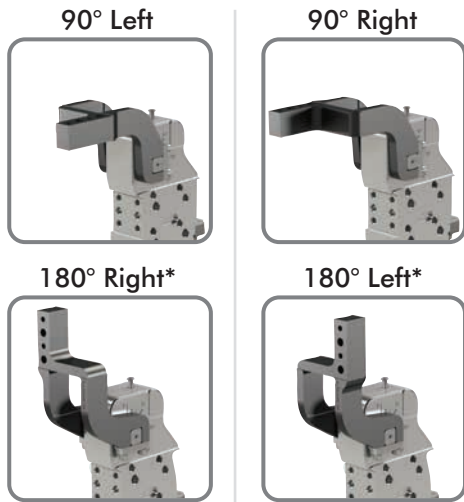
*90° left/180° right uses same clamp arm.
90° right/180° left uses same clamp arm.

Arm Model No.	Max. Opening 90° Version	Max. Opening 180° Version	Weight (kg)	L5
8U(•)504-15-144	135°	105°	0,45	15
8U(•)504-25-144		120°	0,46	25
8U(•)504-45-144		135°	0,49	45

82M-4E U-ARMS OFFSET (ALUMINUM), LATERAL ARMS

Enclosed Pneumatic Power Clamps | Heavy-Duty Modular | Dimensions and Technical Specifications

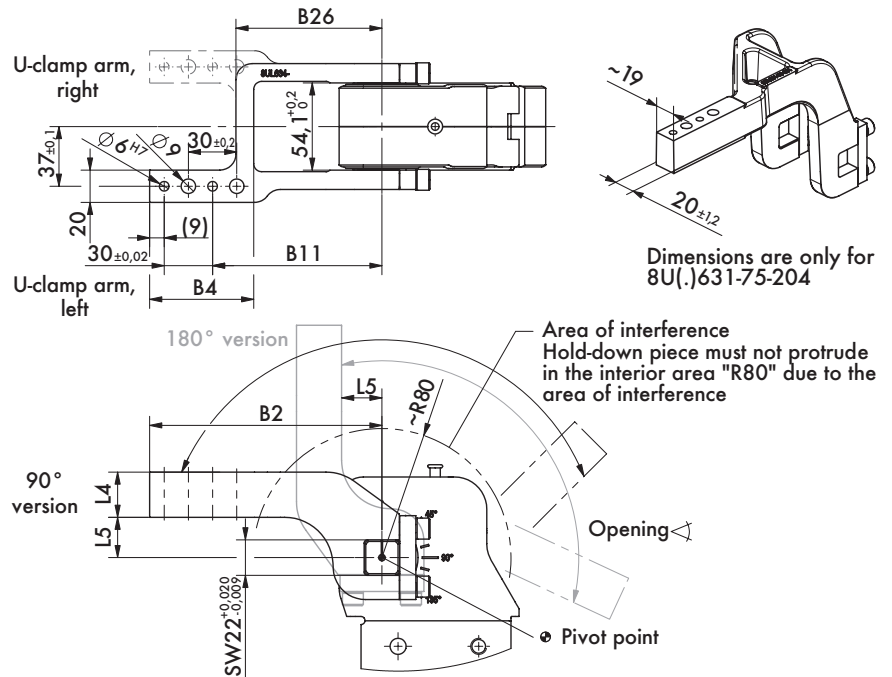
U-Arms Offset for Size 63mm



8UL634-15-144
8UL634-25-144
8UL634-45-144
8UL631-75-204**

8UR634-15-144
8UR634-25-144
8UR634-45-144
8UR631-75-204**

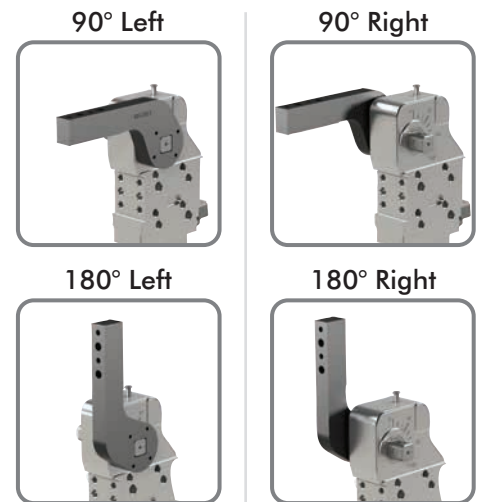
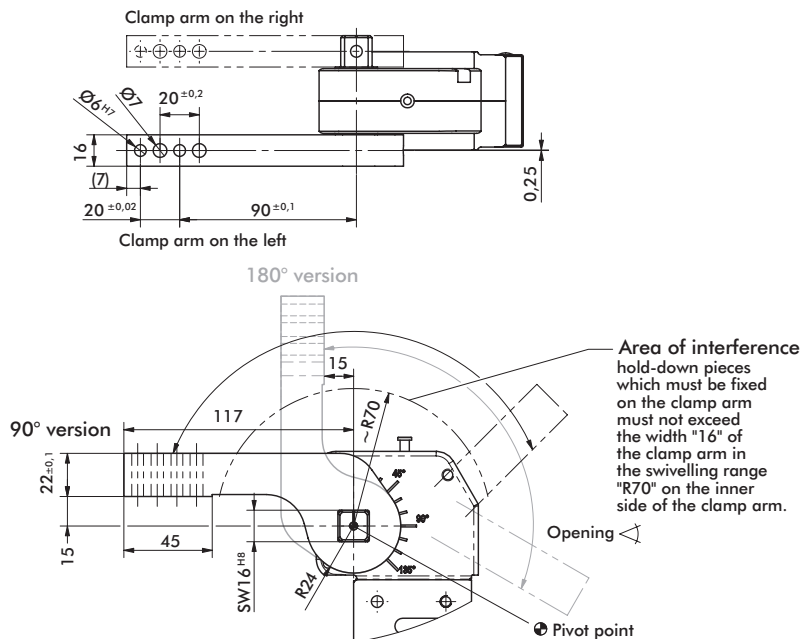
*90° left/180° right uses same clamp arm.
90° right/180° left uses same clamp arm.



Arm Model No.	Max. Opening 90° Version	Max. Opening 180° Version	Weight (kg)	B2	B4	B11 ±0,1	B26	L4 ±0,1	L5
8U(•)634-15-144	135°	105°	0,52						15
8U(•)634-25-144		120°	0,54	144	64,5	105	90,5	28	25
8U(•)634-45-144			0,58						45
8U(•)631-75-204**		135°	1,9	204	82	165	119	30	75

**only steel version available.

Lateral Arms for Size 40mm



8S401-15-117

Arm Model No.	Max. Opening 90° Version	Max. Opening 180° Version	Weight (kg)
8S401-15-117	135°	120°	0,5

1 clamp arm per set. Models with 2 lateral clamp arms requires 2 clamp arm sets.

