

Series **82M-6** Product Overview (last time in catalog)

Features:

- modular design
- shielded body, dirt-resistant
- compact design
- high holding torques
- long life cycle
- low weight (aluminium body)
- wide range of clamping arm variants
- adjustable opening angle without need for accessory parts (15°-steps from 15°...120°)
- mounting areas at front, back and sides
- toggle action mechanism
- manual unlocking in case of pressure drop
- inductive sensing module with LED display

Key areas of application:

Automotive manufacturing, sheet processing industry, jig and general mechanical engineering.

Application:

Clamping, holding, gripping and positioning of metal sheets and other parts, mainly in jigs and handling systems. Your best choice for carefully inserting and clamping components are the clamps with a handle lever.

82M-623__50...

82M-623__63...

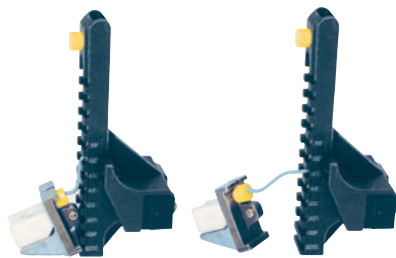
Modular automation power clamp, shown without hand lever



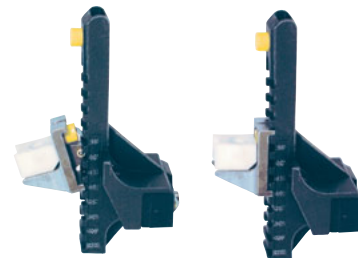
Simple adjusting of opening angle (pictures show sensor-box separated from clamp)



120° Opening angle (delivery condition)



Click-out of bumper



Click-in in new position (60°) (sensor box fit for reassembling to clamp)

Model			Standard opening angle	Max. holding torque Nm [lb ft]	Clamping torque at 5 bar Nm [lb ft]	Drive shaft for clamping arm variant	Clamping position	Cylinder Ø mm [in]	Air consumption per double stroke at 5 bar dm³ [ft³]	Weight ~ kg [lbs]
w/o sensing	w/ ind. sensing Connector M12x1									
	90° swivel	parallel with cylinder								
82M-62305000	82M-623050D8	82M-623050C8	120°v	1000 [738]	270 [199]	lateral, U-central/ U-lateral	horizontal/ vertical	50 [1.97]	2,2 [0.08]	4,2 [9.24]
82M-62306300	82M-623063D8	82M-623063C8	120°	1000 [738]	420 [310]			63 [2.48]	3,8 [0.13]	4,6 [10.12]

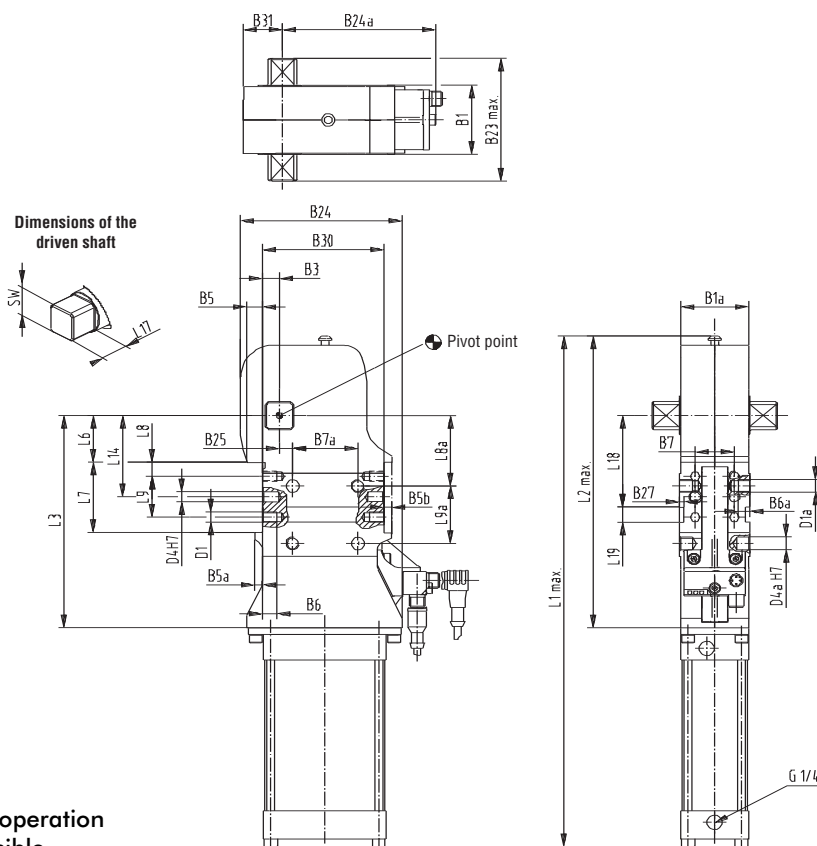
Series **82M-6** Standard Clamp Dimensions

Model	Connection	B1	B1 α	B3	B5	B5 α	B5b	B6	B6 α	B7 ¹⁾
	G	$\pm 0,1$		$\pm 0,1$						$\pm 0,1$
82M-623050__	G 1/4	54	52	13	12	6	6	11	9	30
82M-623063__	G 1/4	54	52	13	12	6	6	11	9	30

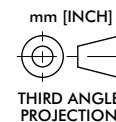
Model	B7 α ¹⁾	B23	B24	B24 α	B25	B27	B30	B31	D1	D1 α	D4	D4 α	L1
	$\pm 0,1$	max			$\pm 0,1$		$\pm 0,1$				H7	H7	max
									\emptyset	\emptyset			
82M-623050__	50	96	124	119	10	3,5	93	30	M8	M10	8	10	390,5
82M-623063__	50	96	124	119	10	3,5	93	30	M8	M10	8	10	403,5

Model	L2	L3	L6	L7	L8	L8 α	L9	L9 α ¹⁾	L14	L17	L18	L19	SW
	max		$\pm 0,05$	$+ 0,1$	$\pm 0,1$	$\pm 0,1$	$\pm 0,1$	$\pm 0,1$	$\pm 0,1$			N9	h9
82M-623050__	230,5	166	36,5	55	11	55	32	45	63,5	21	71,5	12	22
82M-623063__	230,5	166	36,5	55	11	55	32	45	63,5	21	71,5	12	22

1) Tolerance for distance to dowel hole $\pm 0,02$



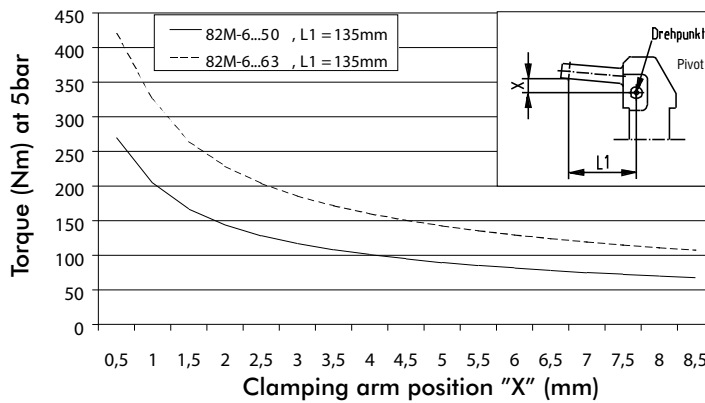
Medium: air, max. 6 bar, operation with oil-free air is permissible



Series **82M-6** Technical Information

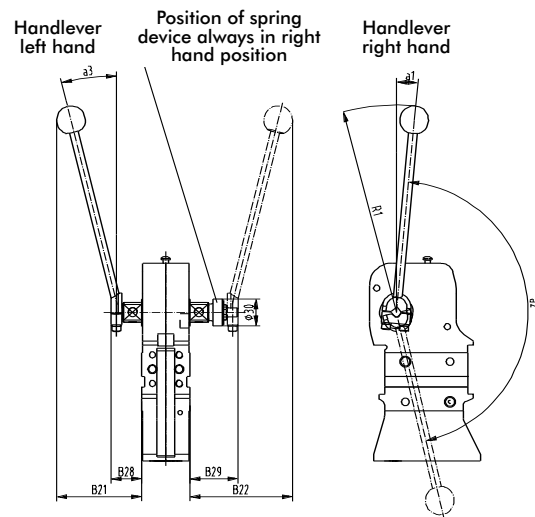
Diagram of Clamping Force (at 5 bar)

Models 82M-6...50.. /-6...63..



Modular automation power clamp, enclosed design, lightweight, with hand lever

82M-6.....
Additional dimensions for hand lever version

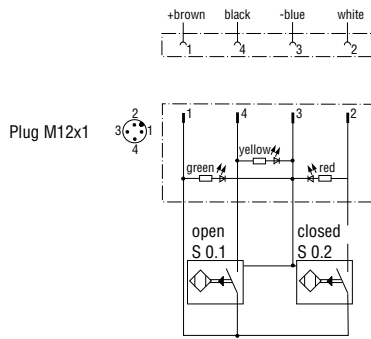


82M-6...KC8 modular automation power clamp, with hand lever (left hand)

Model			Standard opening angle	Max. holding torque [Nm]	Clamping torque at 5 bar [Nm]	Drive shaft for clamping arm variant	Clamping position	Cylinder Ø	Air consumption per double stroke at 5 bar [dm³]	Weight ~ [kg]
w/o sensing	w/ ind. sensing Connector M12x1									
	90° swivel	parallel with cylinder								
82M-623K5000	82M-623K50D8	82M-623K50C8	120°	1000	270	lateral, U-central/ U-lateral	horizontal/ vertical	50	2,2	4,2
82M-623K6300	82M-623K63D8	82M-623K63C8	120°	1000	420			63	3,8	4,6

Technical data (additional dimensions of hand lever version)

Model	α1	B21	B22	B28	B29	R1	Hand lever slew angle α2							
	~	~	~	max	max	~	with reference to opening angle of clamping arm							
							15°	30°	45°	60°	75°	90°	105°	120°
82M-623K50__	5°	104	124	37	55	240	50°	65°	79°	93°	110°	125°	140°	160°
82M-623K63__	5°	104	124	37	55	240	50°	65°	79°	93°	110°	125°	140°	160°



Wiring diagram of electrical sensing system
Sensing system immune to interference from d.c. arc welding and a.c. arc welding

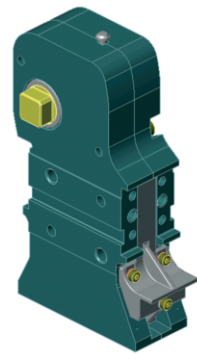
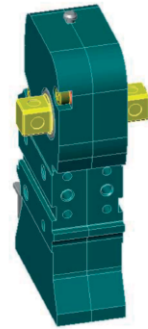





Inductive design:

- C8 Connecting plug M12x1, parallel with cylinder
- D8 Connecting plug M12x1, 90° swivel

Pin assignment

Model numbering code for 82M-6.....

Example Order No.: **82M-6 23 K 50 C8**

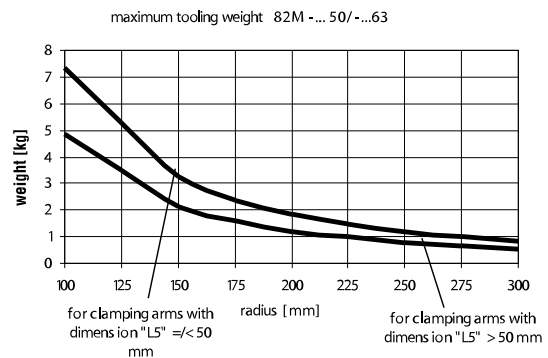
<p>82M - 6 = with standard dimensions</p> <p>without hand lever, without cylinder, without sensing system</p> 	<p>23 = drive shaft for lateral clamp arms and U-arms</p> 	<p>0 = without hand lever</p> <p>K = with hand lever, welded 8KB-053-1</p> 	<p>50 = pneumatic cylinder Ø50</p>  <p>63 = pneumatic cylinder Ø63</p> 	<p>00 = without sensing system</p> <p>C8 = inductive sensing system 82M-000000C8</p>  <p>D8 = inductive sensing system 82M-000000D8</p> 
Basic model	Drive shaft	Handlever	Cylinder	Sensing system

Spare parts, without or with hand lever

Specification	Structure component	Order no.	Comment
Hand lever set	82M-6.....	8KB-053-1	
Hand lever mechanism	82M-623.....	8KB-028-1	
Complete sensor box for D8 sensing system	82M-6.....D8	82M-000000D8	Connector plug M12x1, 90° swivel
Complete sensor box for C8 sensing system	82M-6.....C8	82M-000000C8	Connector plug M12x1, parallel with cylinder
Limit stop box without sensing system	82M-6.....00	82M-00000000	
Complete cylinder, Ø50	82M-6...50..	8PW-104-1	
Complete cylinder, Ø63	82M-6...63..	8PW-084-1	
Seal kit and piston, Ø50	82M-6...50..	8PW-036-2-00	
Seal kit and piston, Ø63	82M-6...63..	8PW-037-2-00	

Concept guideline

(with reference to axis of clamping arm rotation)



All details apply under an air pressure of 6 bar and opening and closure times of 1 second each.

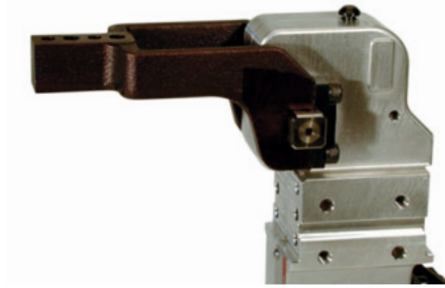
Series **82M-6** Clamping Arm Variants

Clamping arm design

U-type central clamping arm

Clamping position

horizontal or vertical



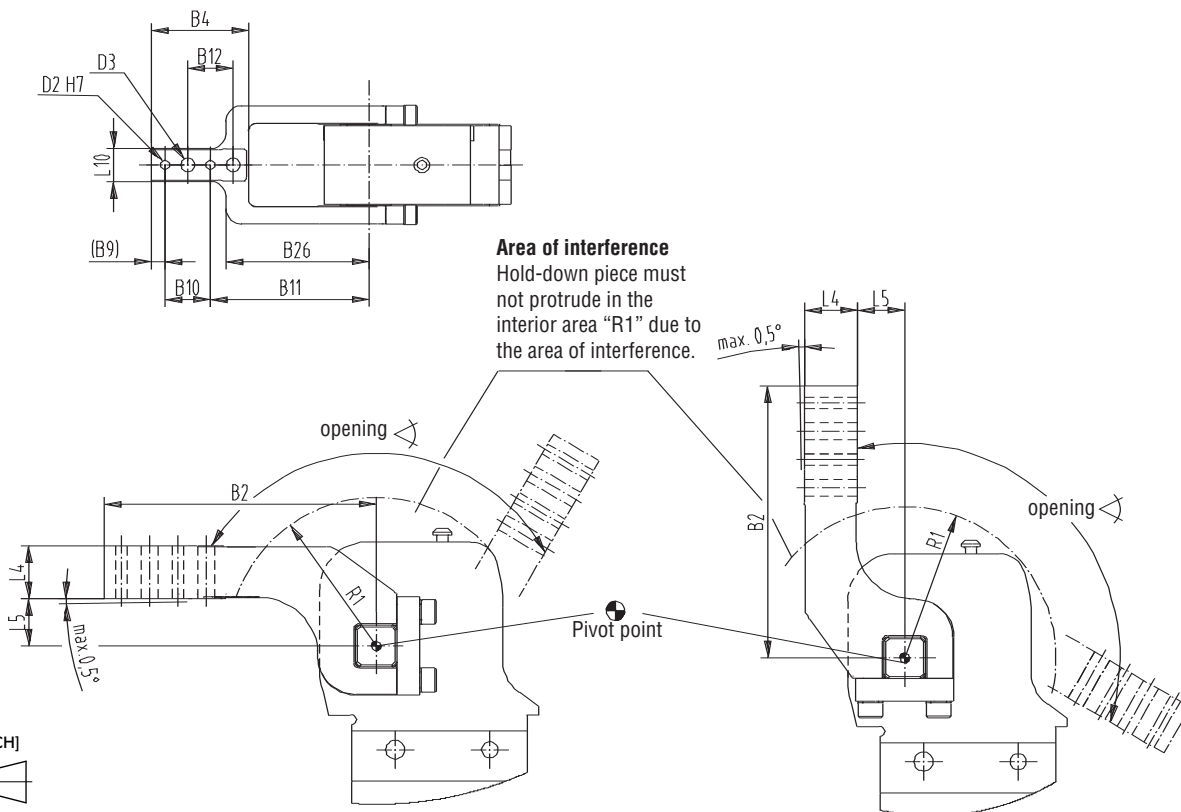
Central clamping arm, horizontal clamping position

U-type central clamping arm Technical Information

Model	Order no. for set of U-type central clamping arms	Opening angle for clamping position		Weight (kg)	B2	B4	B9	B10	B11	B12	B26	D2 H7	D3	L4	L5	L10	R1
		horizontal	vertical														
82M-6...50..	8UM 631-15-144	120°	105°	1,1	144	64,3	9	30	105	30	95	6	9	28	15	20	80
	8UM 631-25-144	120°	120°	1,2	144	64,3	9	30	105	30	95	6	9	28	25	20	80
82M-6...63..	8UM 631-45-144	120°	120°	1,3	144	64,3	9	30	105	30	95	6	9	28	45	20	80
	8UM 631-75-204	120°	120°	1,7	204	82	9	30	165	30	107	6	9	30	75	20	80

Horizontal clamping arm position

Vertical clamping arm position



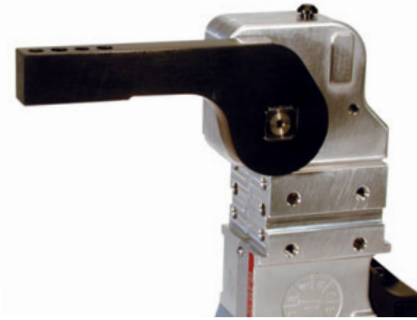
Series 82M-6 Clamping Arm Variants

Clamping arm design

- lateral / left
- lateral / right
- lateral / both sides

Clamping position

- horizontal or vertical
- horizontal or vertical
- horizontal or vertical



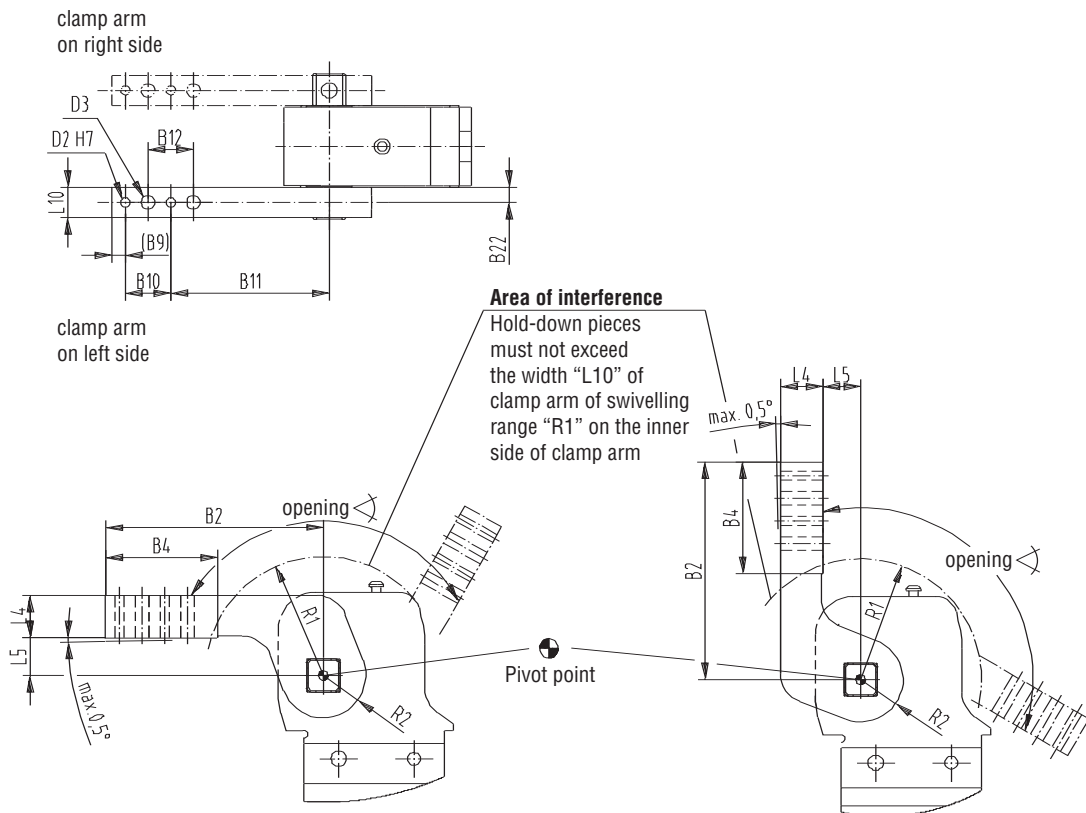
Lateral clamping arm, horizontal clamping position

Lateral clamping arms Technical Information

Model	Order no. for set of clamping arms	Opening angle for clamping position		Weight (kg)	B2	B4	B9	B10	B11	B12	B22	D2	D3	L4	L5	L10	R1	R2
		horizontal	vertical		±0,02 ±0,1 ±0,2			H7 ±0,1 (-0,5° max.)		∅	∅							
82M-6...50..	8JG-080-1-01	120°	120°	0,9	144	74	9	30	105	30	10	6	9	28	15	20	80	28
82M-6...63..	8S631-25-144	120°	120°	1	144	74	9	30	105	30	10	6	9	28	25	20	80	28
	8S631-75-204	120°	120°	1,5	204	78	9	30	165	30	10	6	9	30	75	20	80	28

Horizontal clamping arm position

Vertical clamping arm position



mm [INCH]
THIRD ANGLE PROJECTION

Series **82M-6** Clamping Arm Variants

Clamping arm design

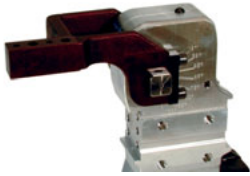
U-type clamping arm, left

U-type clamping arm, right

Clamping position

horizontal or vertical

horizontal or vertical



U-type clamping arm, left, horizontal clamping position



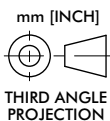
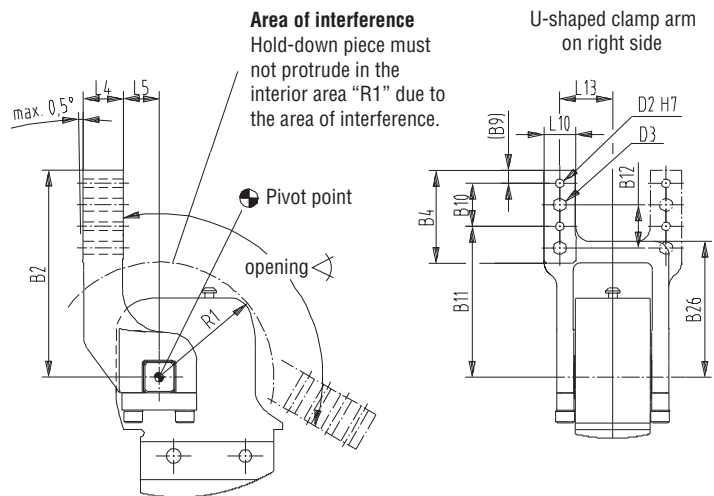
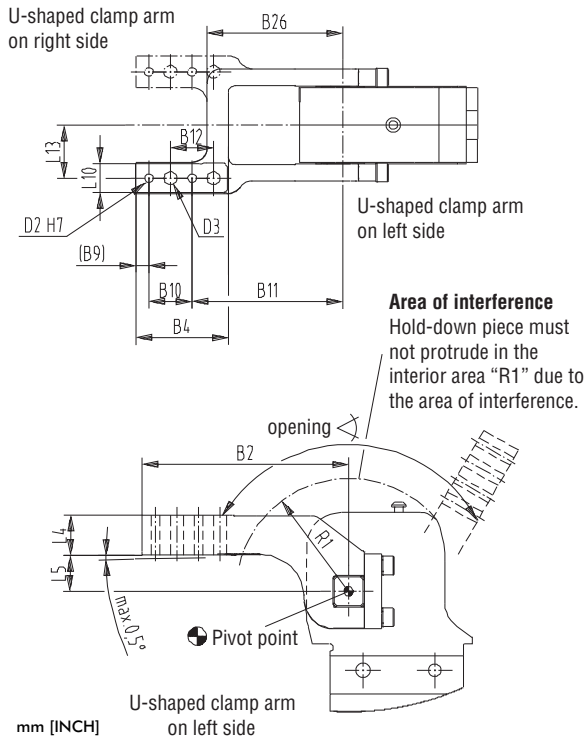
U-type clamping arm, right, horizontal clamping position

U-clamp arm lateral Technical Information

Order No. for set		Opening angle for clamping position		Weight (kg)	B2	B4	B9	B10	B11	B12	B26	D2	D3	L4	L5	L10	L13	R1
left	right	horizontal	vertical															
U-type clamping arms for 82M-6								$\pm 0,02$	$\pm 0,1$	$\pm 0,2$		H7		$\pm 0,1$	(-0,5°	$\pm 1,2$	$\pm 0,1$	
		max.)										\emptyset	\emptyset					
8UL631-15-144	8UR631-15-144	120°	105°	1,1	144	64,3	9	30	105	30	95	6	9	28	15	20	37	80
8UL631-25-144	8UR631-25-144	120°	120°	1,2	144	64,3	9	30	105	30	95	6	9	28	25	20	37	80
8UL631-45-144	8UR631-45-144	120°	120°	1,3	144	64,3	9	30	105	30	95	6	9	28	45	20	37	80
8UL631-75-204	8UR631-75-204	120°	120°	1,9	204	82	9	30	165	30	119	6	9	30	75	20	37	80

Horizontal clamping arm position

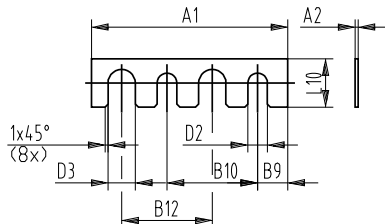
Vertical clamping arm position



Series 82M-6 Accessory information

Specification			Order no. for set 82M-6...50../82M-6...63..	Comment
Clamping arm variant	Fulcrum distance	Clamping position		
U-central	15	horizontal / vertical	8UM631-15-144	sets of U-type clamping arms consist of clamping arm, links and screws
U-central	25	horizontal / vertical	8UM631-25-144	
U-central	45	horizontal / vertical	8UM631-45-144	
U-central	75	horizontal / vertical	8UM631-75-204	
U-left	15	horizontal	8UL631-15-144	
U-left	25	horizontal	8UL631-25-144	
U-left	45	horizontal	8UL631-45-144	
U-left	75	horizontal	8UL631-75-204	
U-left	15	vertical	8UR631-15-144	
U-left	25	vertical	8UR631-25-144	
U-left	45	vertical	8UR631-45-144	
U-left	75	vertical	8UR631-75-204	
U-right	15	horizontal	8UR631-15-144	
U-right	25	horizontal	8UR631-25-144	
U-right	45	horizontal	8UR631-45-144	
U-right	75	horizontal	8UR631-75-204	
U-right	15	vertical	8UL631-15-144	
U-right	25	vertical	8UL631-25-144	
U-right	45	vertical	8UL631-45-144	
U-right	75	vertical	8UL631-75-204	
lateral right/left	15	horizontal / vertical	8JG-080-1-01	sets of lateral clamping arms consist of clamping arm & set screws
lateral right/left	25	horizontal / vertical	8S631-25-144	
lateral right/left	75	horizontal / vertical	8S631-75-204	
lateral both sides	15	horizontal / vertical	8JG-080-1-01	you need 2 sets of lateral clamping arms
	25	horizontal / vertical	8S631-25-144	
	75	horizontal / vertical	8S631-75-204	
Modification set for models 82M-623...			8KB-028-1	if clamp w/o hand lever is to be modified to have hand lever
Connector cable (1 connector socket & 5 m cable)				8EL-002-1
connector socket M12x1 straight, 5-pin				
connector socket M12x1 angular, 4-pin				8EL-003-1
Anti ramming device			82ZB-011-1	

Shims for clamping arms



Model no	A1	A2	D2	D3	B9	B10	B12	L10
82ZB-SH5001	65	0,1	6,5	9	10	30	30	16
82ZB-SH5002		0,2						
82ZB-SH5005		0,5						
82ZB-SH5010		1,0						
82ZB-SH5020		2,0						
82ZB-SH5050		5,0						

Series **82M-6** Handle Options

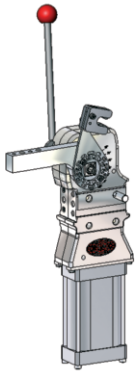
Accessory: Hold open device

Locking device holds open clamps with additional manual actuation.

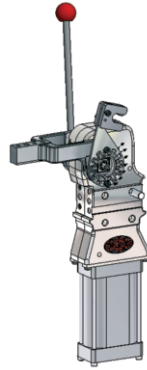
Application:

Pneumatic clamps with handlever. Hold open clamping arm.

Models 82ZB-039-1 (for 82M-6)



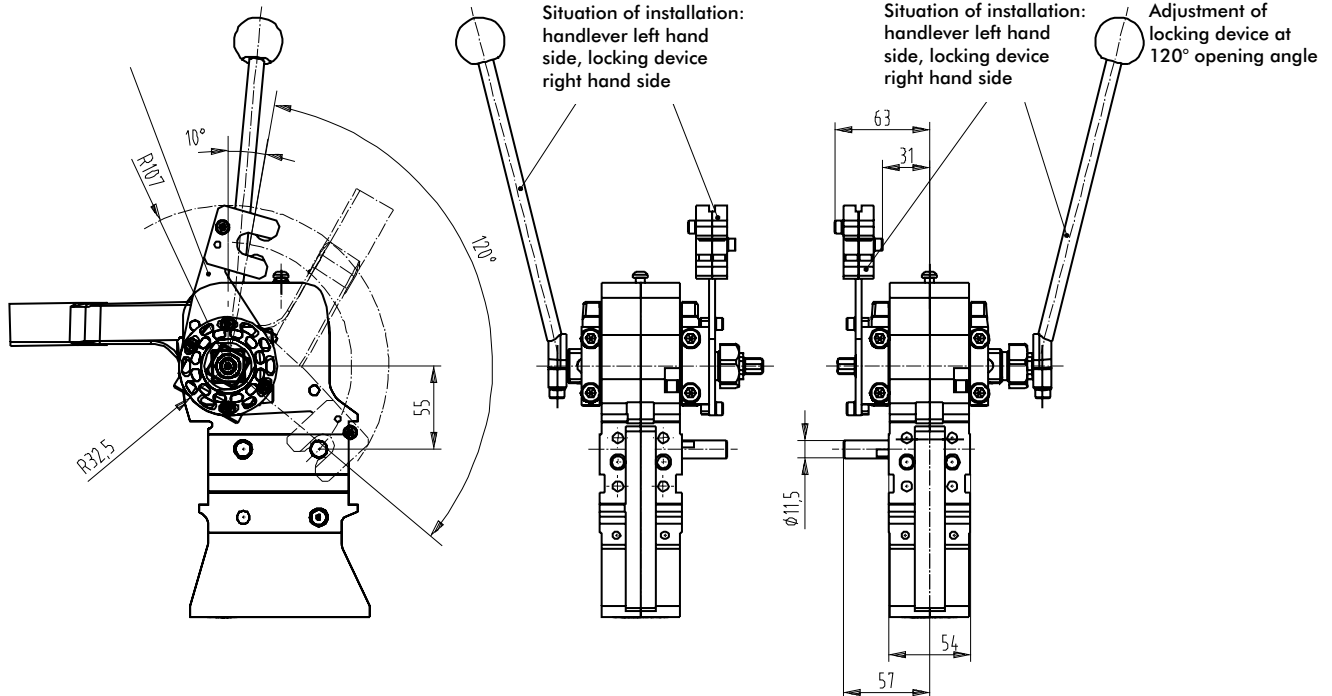
82ZB-039-1
Mounted at lateral arm



82ZB-039-1
Mounted at U-arm

View (shown with U-clamping arm)	Order no.	For clamp-series	Spare part clip (4 pieces needed)
	82ZB-039-1	82M-6	8MH-062-1

Accessory: Hold open device
Order No.: 82ZB-039-1



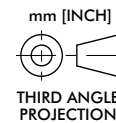
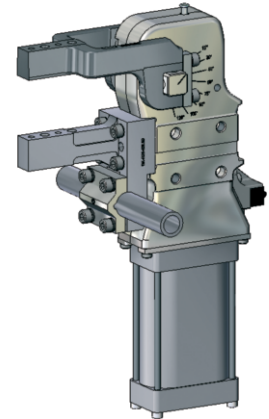
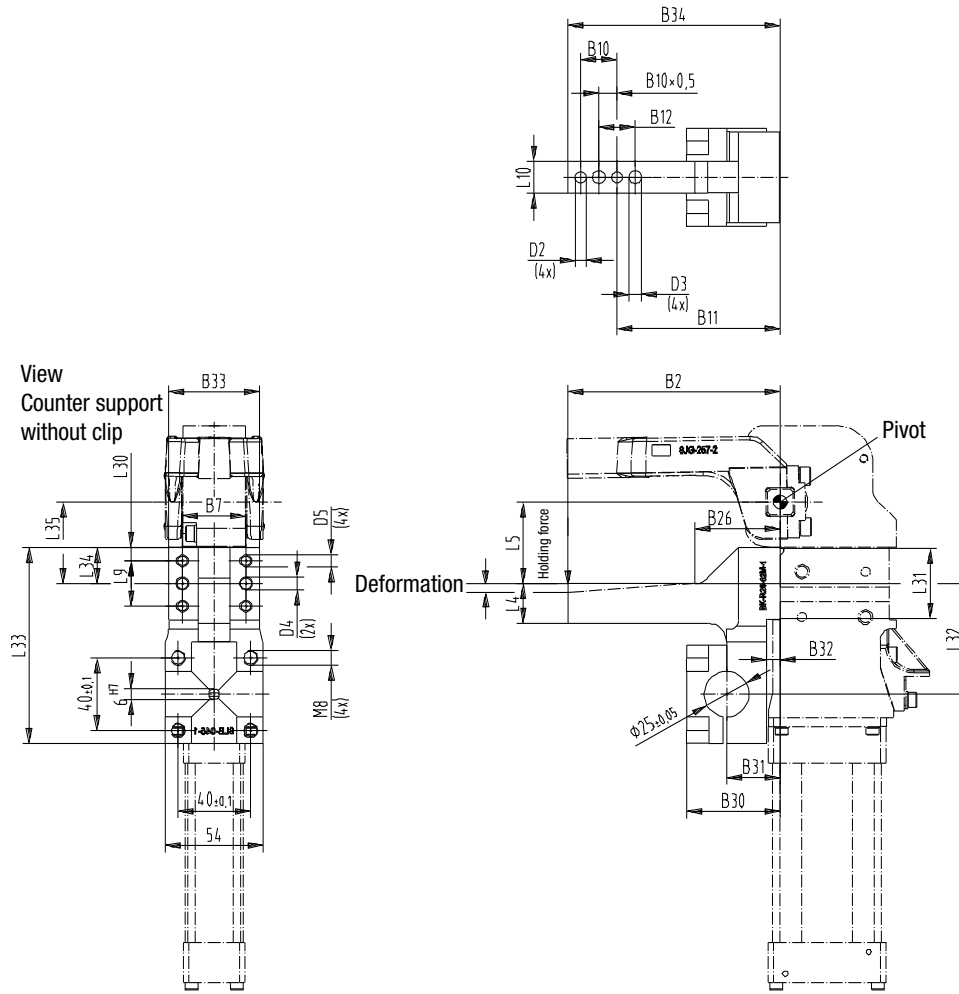
Accessory: Counter-support

Counter support adapter for clamping arm including adaptor for round profile 25mm.

Application:

Mounting clamps at 25mm round profile endeffector system.

Models BK-R25-82L50-1 (for model 82M-6)



Model	B2	B7	B10	B11	B12	B26	B30	B31	B32	B33	B34	D2	D3	D4	D5	L4	L5	L9	L10	L30	L31	L32	L33	L34	L35	
	±0,1	±0,02										∅	∅	∅	∅	±0,1		±0,1			±0,1			±0,02		
		±0,02										H7		H7												
BK-R25-82L50	144	30	30	92	30	54	67,5	44	22	54	131	6	9	8	9	31	45	32	20	10,85	54,7	73,5	109	26,85	63,5	

View	Order no..	For clamp-series	Holding force max. [N]	Elastic Deformation at Holding force [mm]	Weight ~ [kg]
	BK-R25-82L50-1	82M-6	3000	0,25	0,75