

82M AND TCC

Enclosed Pneumatic Power Clamps | Heavy-Duty, Tolerance Compensation | Product Overview

82M Series Enclosed Power Clamp



Shown with optional U-Arms and Cylinders with Internal Hold Open Device



"B" Front Mount available for 82M and TCC size 40mm

Same mounting pattern as size 50 and 63mm

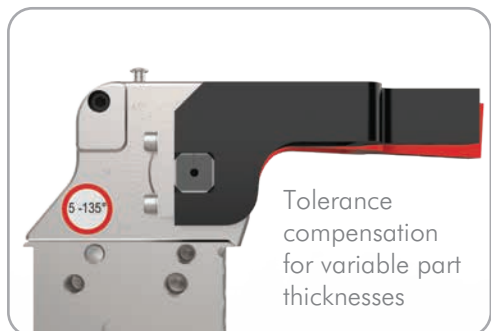


NAAMS Lateral Mounting available on 82M and TCC in addition to narrow, wide and NAAMS Clamp Arm Shafts

TCC Tolerance Compensating Power Clamp



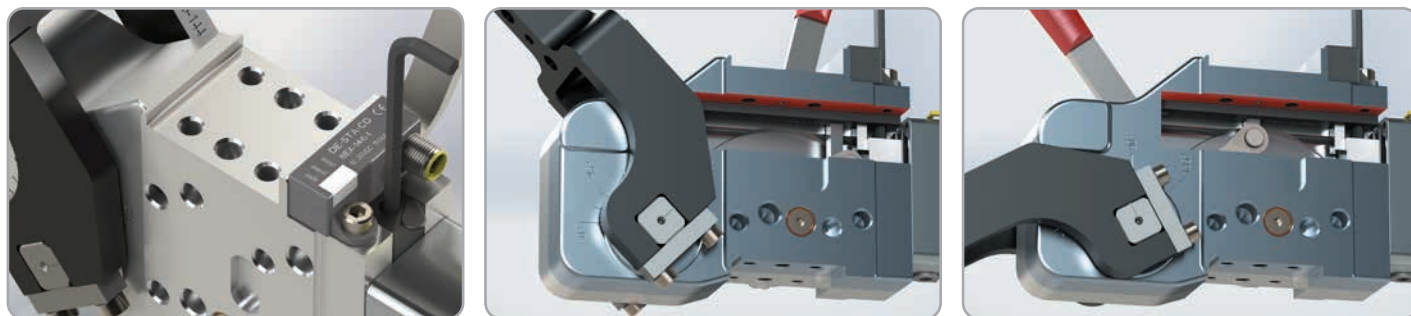
Shown with optional U-Arms and Cylinders with Internal Hold Open Device



Tolerance compensation for variable part thicknesses

- Tolerance compensation for variable sheet metal thicknesses within three degrees of arm movement
- There is no need for shimming

Adjusting the Arm Opening Angle

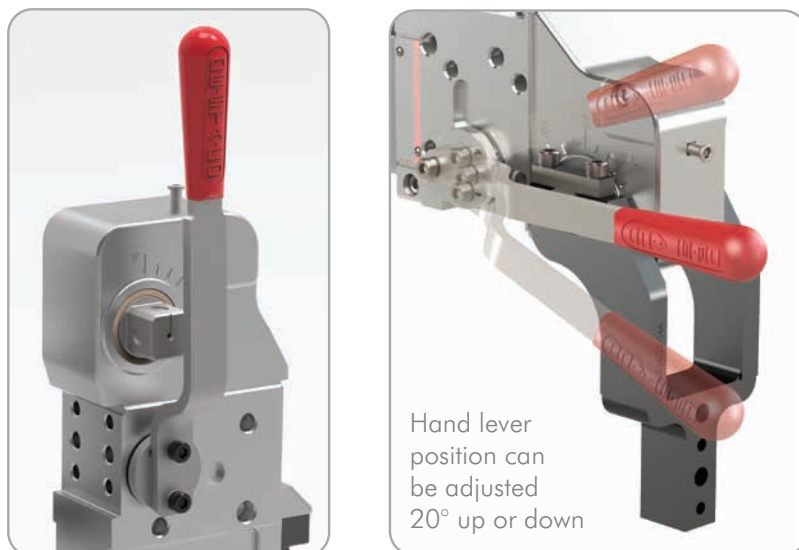


Easily adjust arm opening angle with an M5 Allen wrench.

- Move clamp arm to full open position.
- Using Allen wrench, release mechanism (leave Allen wrench in place).
- Move clamp arm to desired opening.
- Tighten to 10-15 Nm.

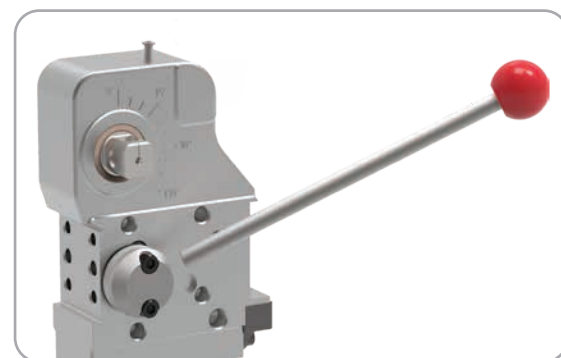
Enclosed Power Clamp Hand Lever (82M-3E Models Only)

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

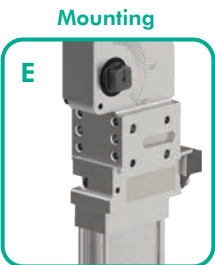


- Hand lever can be welded into a permanent position.
- Handle can be mounted on the left or right side

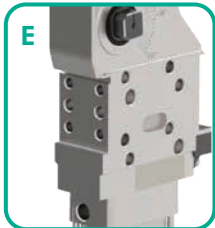
TCC-2

Enclosed Pneumatic Power Clamps | Heavy-Duty, Tolerance Compensation | Ordering Information

TCC-2		E		03		00		6A		L8	
Mounting	Description	Clamp Arm Shaft		Description		Hand Lever		Description			
E	Standard Mounting	03		for U-Arms		00		No Hand lever			
B	Common Front Mount for Size 40 only (same mount pattern as size 50 & 63)	23		for Lateral Arms							
N	NAAMS Side Mounting for Size 63 only			See below for further details							



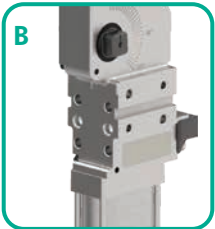
Size 40



Size 50



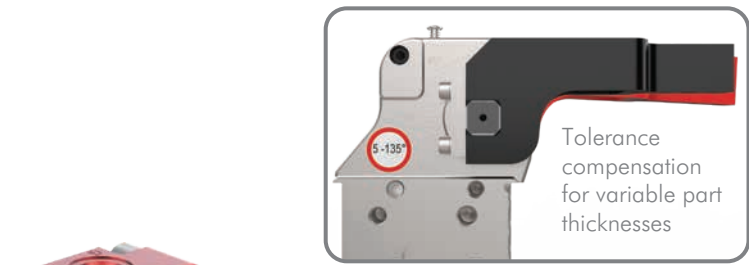
Size 63



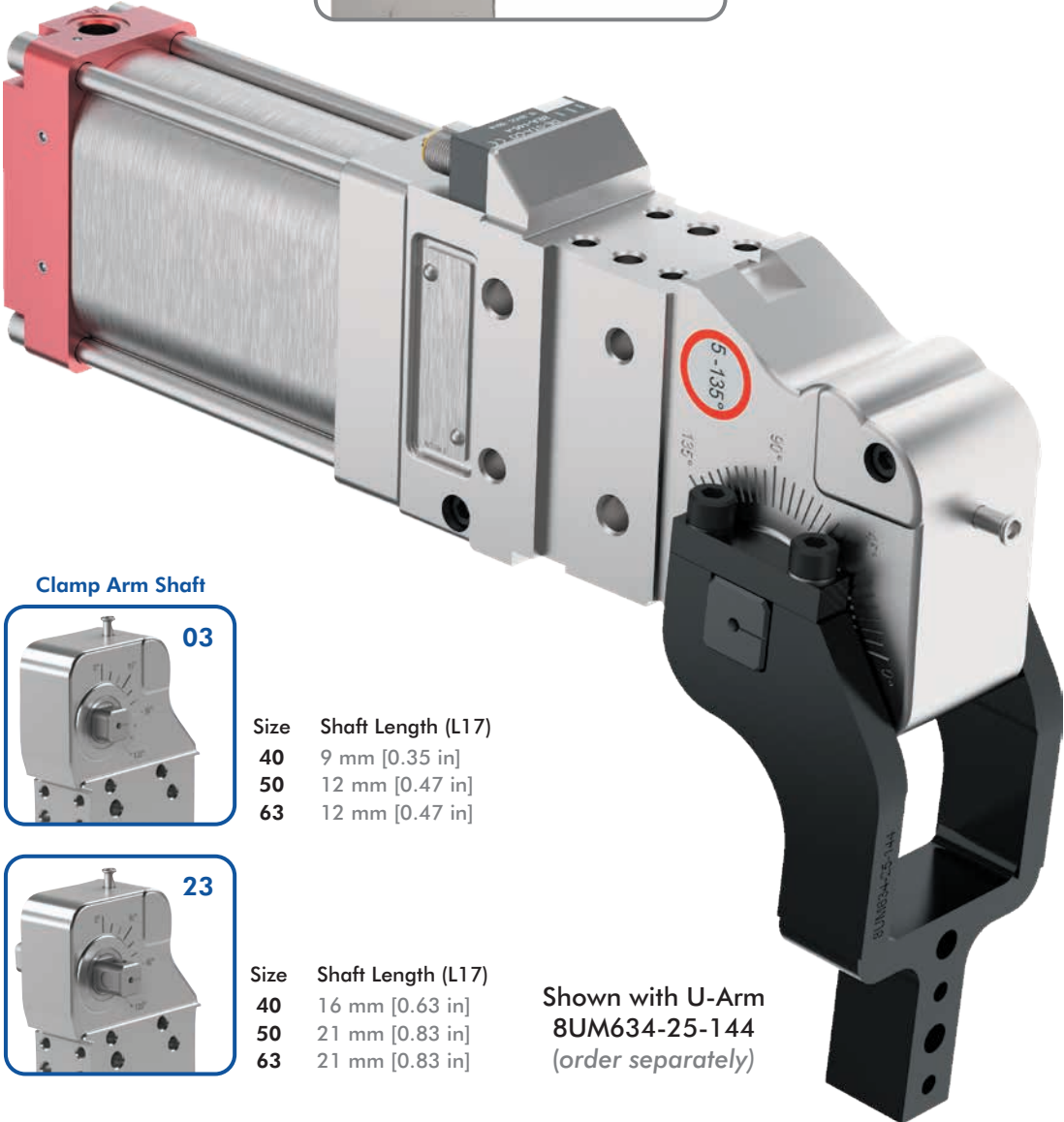
Size 40 Only



Size 63 Only



- Tolerance compensation for variable sheet metal thicknesses within three degrees of arm movement
- There is no need for shimming



Clamp Arm Shaft



03

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



23

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

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

Enclosed Pneumatic Power Clamps | Heavy-Duty, Tolerance Compensation | Ordering Information

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

*Not available for use with 4V, 5V, 6V cylinder option.
See page 69 for replacement sensor kits and components.



L8/N8



L9/N9

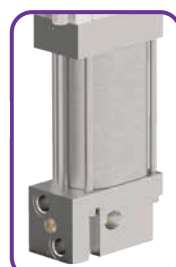


K8/K9



Cylinder (Standard)

- 40 40 mm Cylinder (G1/8 Port)
- 50 50 mm Cylinder (G1/4 Port)
- 5N 50 mm Cylinder (1/4-18 NPT Port)
- 63 63 mm Cylinder (G1/4 Port)
- 6N 63 mm Cylinder (1/4-18 NPT Port)



Cylinder with Unlockable Return Valve

- 4C 40 mm Cylinder (G1/8 Port)
- 5C 50 mm Cylinder (G1/4 Port)
- 5D 50 mm Cylinder (1/4-18 NPT Port)
- 6C 63 mm Cylinder (G1/4 Port)
- 6D 63 mm Cylinder (1/4-18 NPT Port)



Cylinder with Internal Hold Open Device

- 4A 40 mm Cylinder (G1/8 Port)
- 5A 50 mm Cylinder (G1/4 Port)
- 5B 50 mm Cylinder (1/4-18 NPT Port)
- 6A 63 mm Cylinder (G1/4 Port)
- 6B 63 mm Cylinder (1/4-18 NPT Port)



Cylinder with Piston Rod Locking Device

- 4V 40 mm Cylinder (G1/8 Port)
- 5V 50 mm Cylinder (G1/4 Port)
- 6V 63 mm Cylinder (G1/4 Port)



40

Max Holding/
Clamping Torque
85 Nm [62.7 ft-lb]
at 5 bar [72 psi]



50

Max Holding/
Clamping Torque
175 Nm [129 ft-lb]
at 5 bar [72 psi]



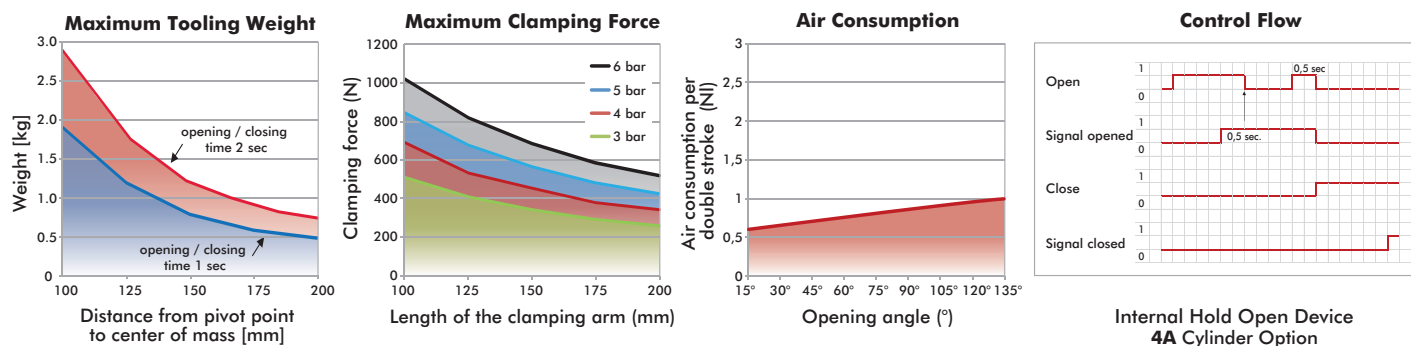
63

Max Holding/
Clamping Torque
295 Nm [217.6 ft-lb]
at 5 bar [72 psi]

TCC-2

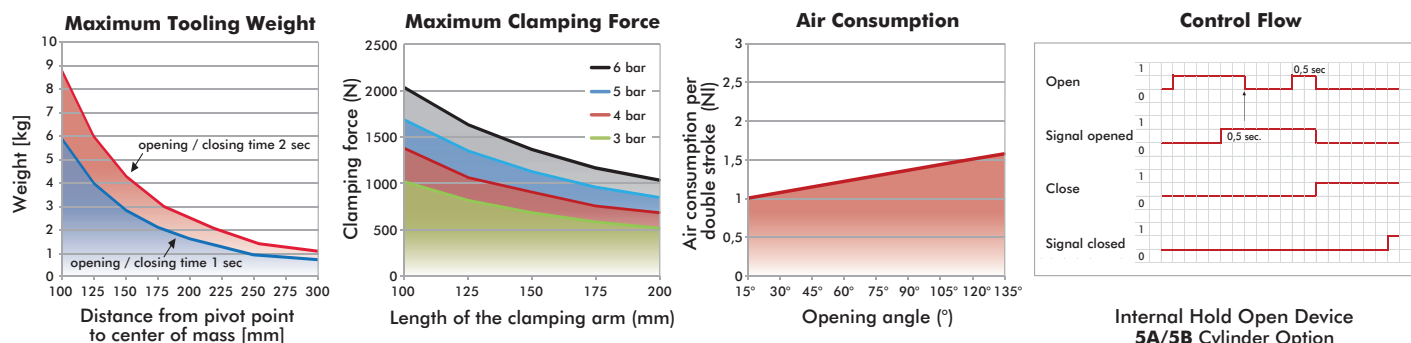
Enclosed Pneumatic Power Clamps | Heavy-Duty, Tolerance Compensation | Technical Specification

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)
TCC-2.....40..	85	85	40	1,6	0,9
TCC-2.....4A..				1,7	
TCC-2.....4B..				1,6	
TCC-2.....4V..				1,6	



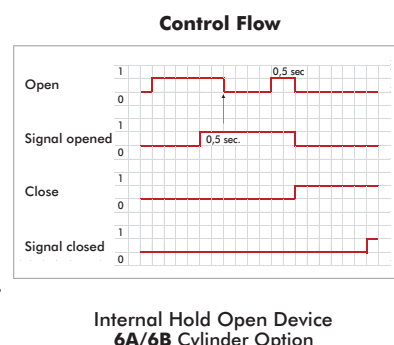
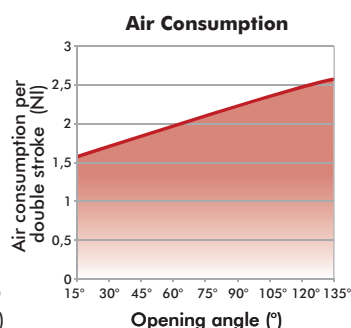
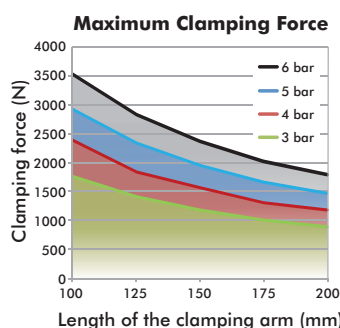
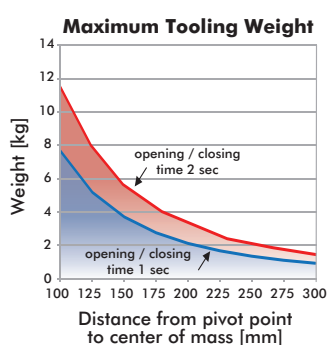
ATTENTION: Calculation tool available. Please consult factory.

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)
TCC-2E....50..	175	175	50	2,8	1,6
TCC-2E....5N..				3,0	
TCC-2E....5A..				2,9	
TCC-2E....5B..				2,9	
TCC-2E....5C..	175	175	50	3,0	1,6
TCC-2E....5D..				3,0	
TCC-2E....5V..				2,9	



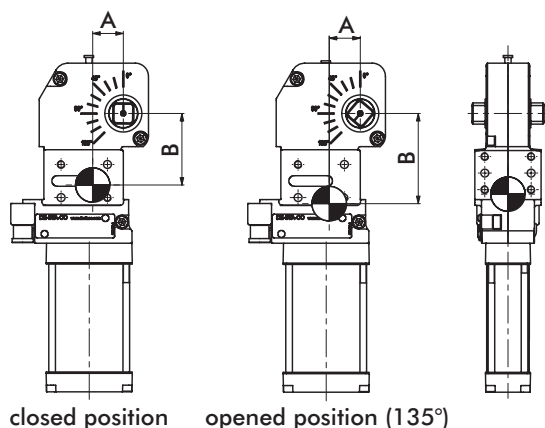
ATTENTION: Calculation tool available. Please consult factory.

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)
TCC-2.....63..	295	295	63	3,8	2,6
TCC-2.....6N..				4,0	
TCC-2.....6A..				4,6	
TCC-2.....6B..				4,2	
TCC-2.....6C..					
TCC-2.....6D..					
TCC-2.....6V..					



ATTENTION: Calculation tool available. Please consult factory.

Center of Mass



Model	A		B		Weight
	Closed	Open	Closed	Open	
TCC-2E....40..	23	24	55	69	1,5
TCC-2B....40..	24		54	68	
TCC-2E....4A..	22	23	72	86	1,6
TCC-2B....4A..	23		72	85	
TCC-2E....4C..	25	26	77	89	1,7
TCC-2B....4C..	26		76	88	
TCC-2E....4V..	24	24	66	80	1,6
TCC-2B....4V..			66	79	
TCC-2E....50..			70	87	2,6
TCC-2E....5N..	24	25			
TCC-2E....5A..			83	99	2,8
TCC-2E....5B..					
TCC-2E....5C..	27	27	96	110	3,0
TCC-2E....5D..					
TCC-2E....5V..	25	26	84	99	2,9
TCC-2.....63..			89	105	3,7
TCC-2.....6N..	27	28			
TCC-2.....6A..			98	114	3,9
TCC-2.....6B..					
TCC-2.....6C..	30	30	116	130	4,4
TCC-2.....6D..					
TCC-2.....6V..	28	28	103	119	3,9

82M-3

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

82M-3 E 23 H0 50 L8

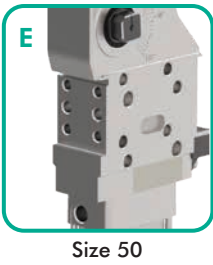
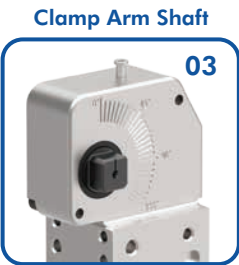
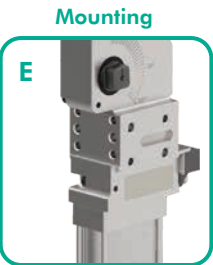
Mounting	Description
E	Standard Mounting
B	Common Front Mount for Size 40 only (same mount pattern as size 50 & 63)
N	NAAMS Side Mounting for Size 40 & 63 only

Clamp Arm Shaft	Description
03	for U-Arms
13	for U-Arms (required for 40 NAAMS N only)
23	for Lateral Arms
D0	for Lateral Arms (size 63 NAAMS N only)

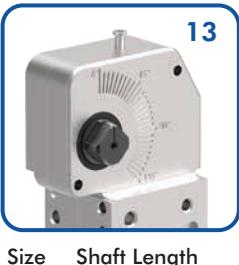
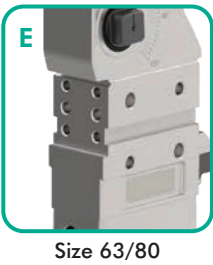
See below for further details

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

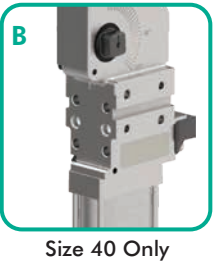
See below for further details



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



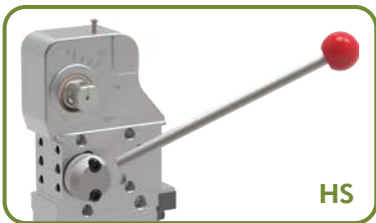
Size	Shaft Length
40	9 mm [0.35 in]



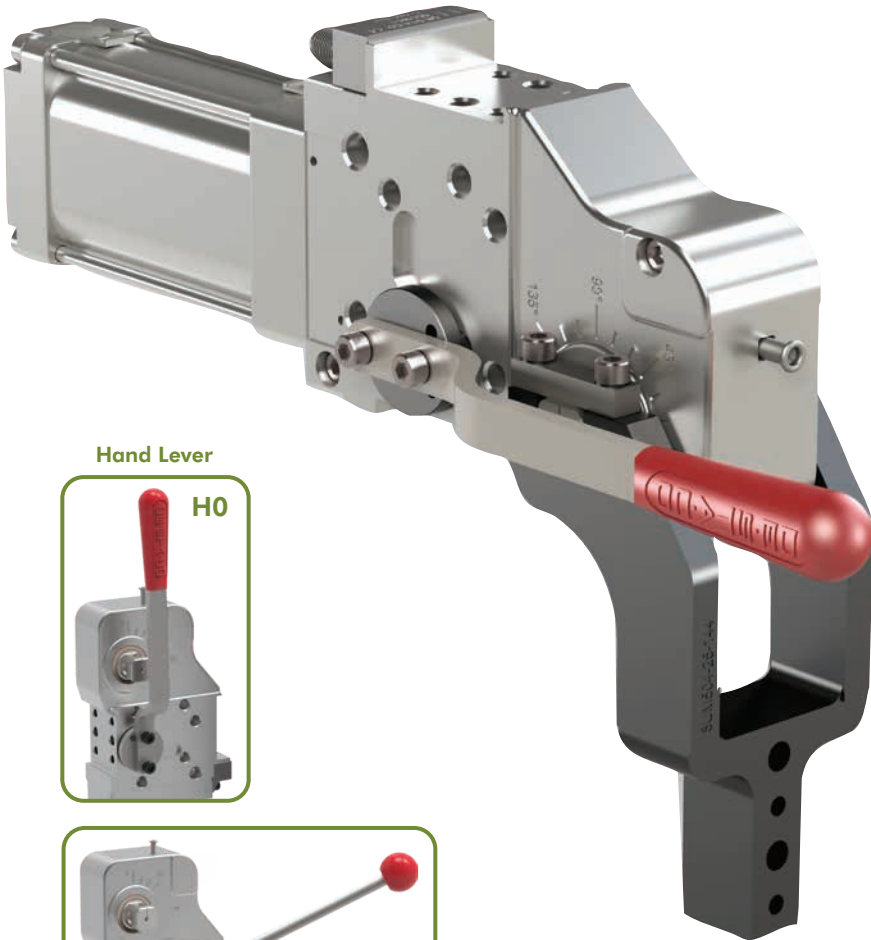
Size	Shaft Length (L17)
40	16 mm [0.63 in]
50	21 mm [0.83 in]
63	21 mm [0.83 in]
80	32 mm [1.26 in]



Size	Shaft Length (L17)
63	26 mm [1.02 in]



Hand Lever	Description
00	No Hand Lever
H0	Standard Hand Lever (not compatible with cylinder options *A, *B)
HS	Weldable Hand Lever (not compatible with cylinder options *A, *B)



Shown with U-Arm
8UM504-25-144
(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-B)
N8	NPN Sensor with In-line M12x1 Connector (8EA-154-4-B)
L9	PNP Sensor with 90° M12x1 Connector (8EA-147-4-B)
N9	NPN Sensor with 90° M12x1 Connector (8EA-155-4-B)
K8	PNP Sensor with M12x1 Cable Connector (8EA-158-4-B)
K9	NPN Sensor with M12x1 Cable Connector (8EA-167-4-B)

See page 69 for replacement sensor kits and components.



L8/N8



L9/N9



K8/K9



Cylinder - Standard

- 40 40 mm Cylinder (G1/8 Port)
- 50 50 mm Cylinder (G1/4 Port)
- 5N 50 mm Cylinder (1/4-18 NPT Port)
- 63 63 mm Cylinder (G1/4 Port)
- 6N 63 mm Cylinder (1/4-18 NPT Port)
- 80 80 mm Cylinder (G1/4 Port)
- 8N 80 mm Cylinder (1/4-18 NPT Port)



Cylinder with Internal Hold Open Device

- 4A 40 mm Cylinder (G1/8 Port)
- 5A 50 mm Cylinder (G1/4 Port)
- 5B 50 mm Cylinder (1/4-18 NPT Port)
- 6A 63 mm Cylinder (G1/4 Port)
- 6B 63 mm Cylinder (1/4-18 NPT Port)
- 8A 80 mm Cylinder (G1/4 Port)
- 8B 80 mm Cylinder (1/4-18 NPT 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]

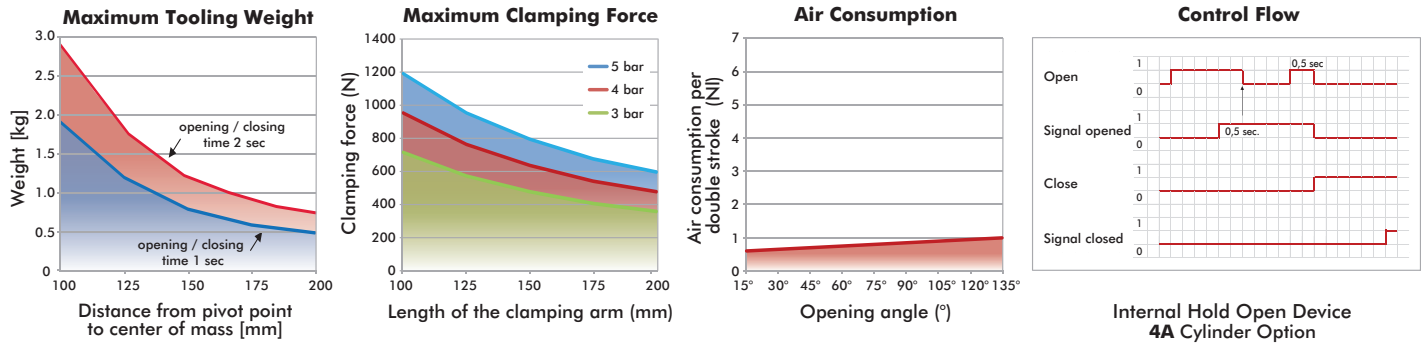
80

Max Holding Torque
3000 Nm [2213 ft-lb]
Max Clamping Torque
850 Nm [627 ft-lb]
at 5 bar [72 psi]

82M-3

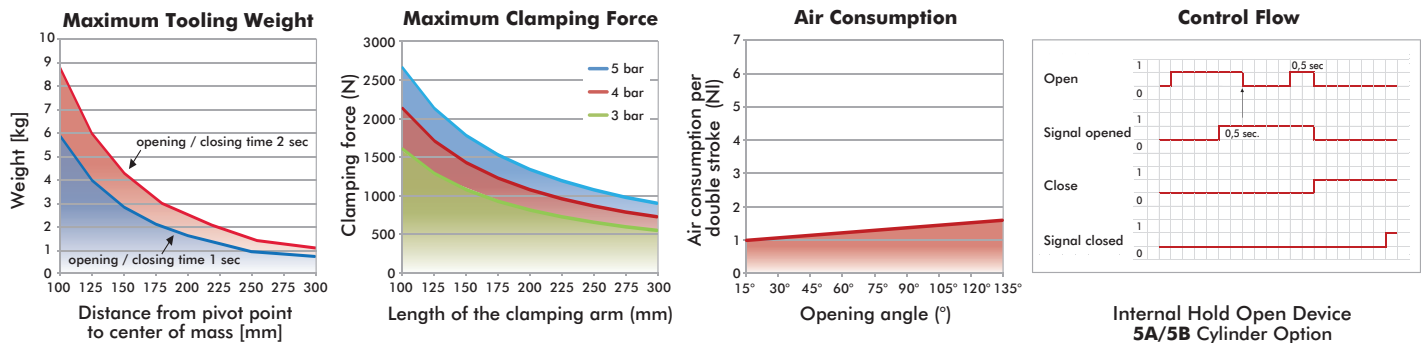
Enclosed Pneumatic Power Clamps | Heavy-Duty Modular | Technical Specification

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-3E...4...	380	120	40	1,5	0,9
82M-3B...4...					
82M-3N...4...					



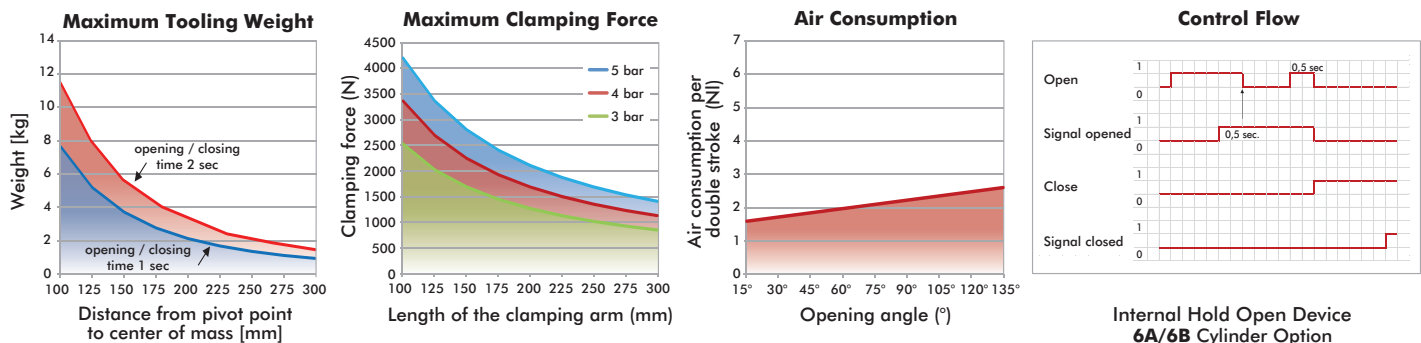
ATTENTION: Calculation tool available. Please consult factory.

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-3E...5...	1300	270	50	2,8	1,6



ATTENTION: Calculation tool available. Please consult factory.

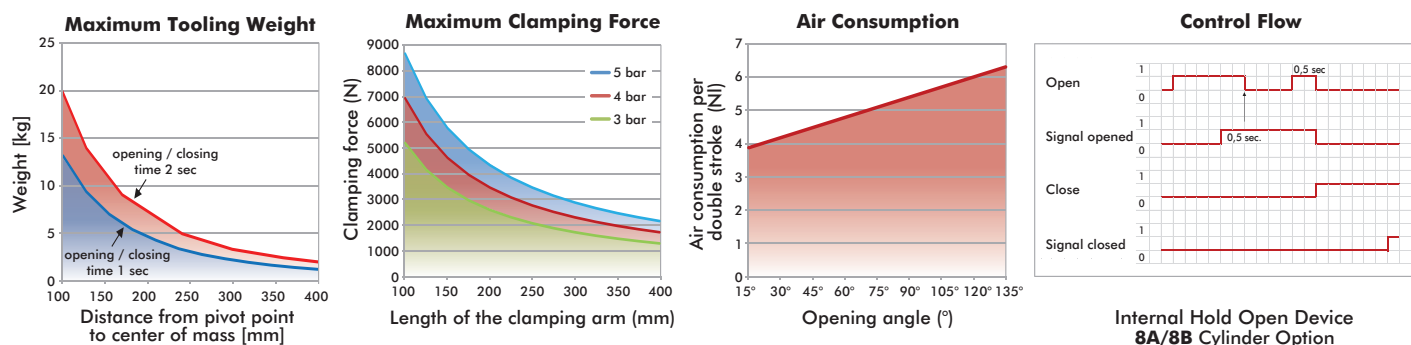
Model	Max. Holding Torque (Nm)	Clamping Torque at 5 bar (Nm)	Cylinder Ø (mm)	Weight (kg)	Air Consumption per double stroke at 5 bar (liter)
82M-3E...6...	1800	420	63	3,8	2,6
82M-3N...6...					



ATTENTION: Calculation tool available. Please consult factory.

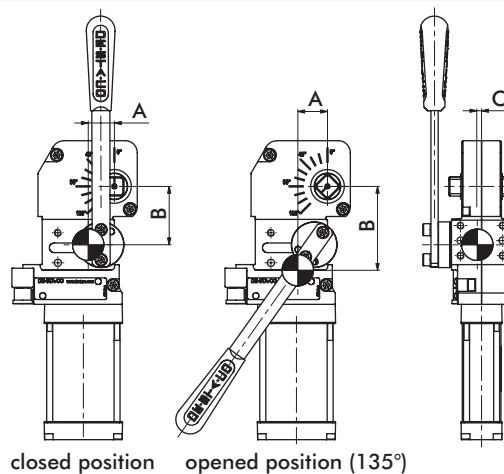
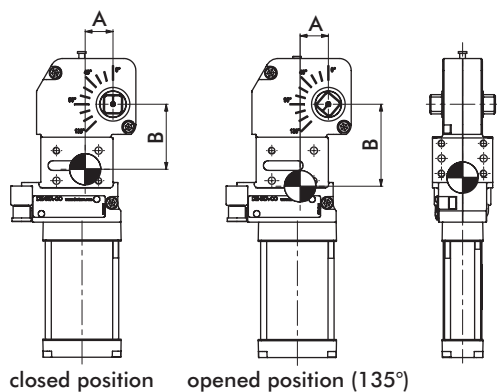
Enclosed Pneumatic Power Clamps | Heavy-Duty Modular | Technical Specification

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-3E....80..	3000	850	80	8,7	6,3
82M-3E....8N..				8,8	
82M-3E....8A..					
82M-3E....8B..					



ATTENTION: Calculation tool available. Please consult factory.

Center of Mass

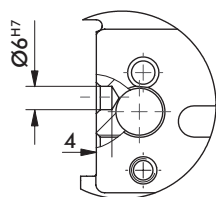
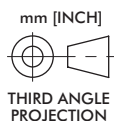
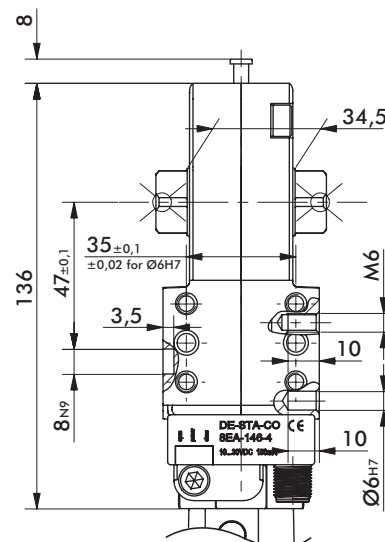
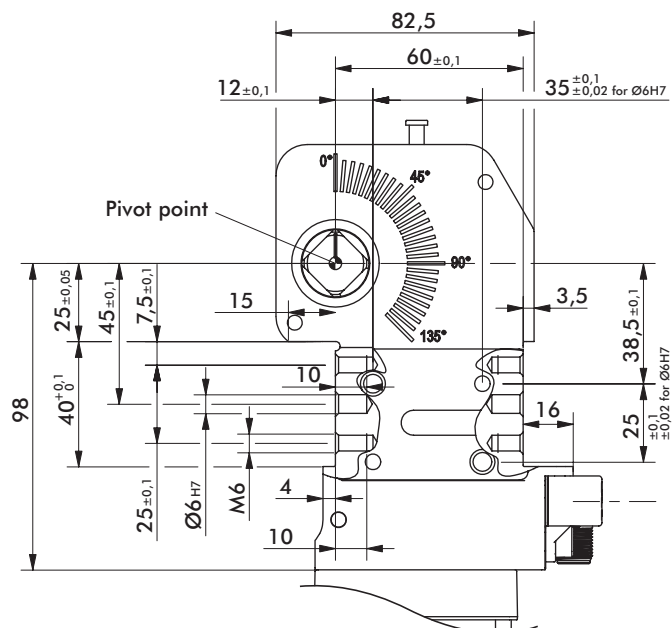
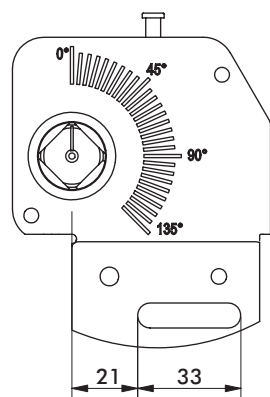
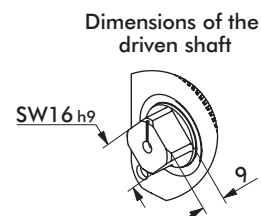
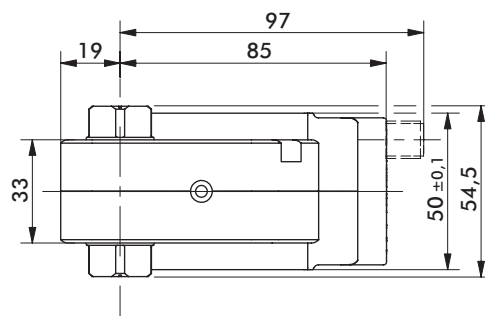


Model	Without Handle				Weight
	A Closed	A Open	B Closed	B Open	
82M-3E....40..	23	24	55	69	1,5
82M-3N....40..					
82M-3B....40..	24		54	68	1,6
82M-3E....4A..	22	23	72	86	
82M-3B....4A..	23			85	2,8
82M-3E....50..			70	87	
82M-3E....5N..	24	25		99	3,8
82M-3E....5A..			83		
82M-3E....5B..					3,9
82M-3.....63..			88	103	
82M-3.....6N..	27	28	98	114	8,7
82M-3.....6A..					
82M-3.....6B..					8,9
82M-3E....80..			98	123	
82M-3E....8N..	36	37			
82M-3E....8A..			104	129	
82M-3E....8B..					

Model	With Handle				C	Weight
	A Closed	A Open	B Closed	B Open		
82M-3E....40..	22	25	49	70	4	1,6
82M-3B....40..	24	27	46	67		
82M-3E....50..	23	30	62	85	3	3,1
82M-3E....5N..						
82M-3.....63..	26	30	80	102	2	4,2
82M-3.....6N..						
82M-3E....80..	35	38	93	122		9,2
82M-3E....8N..						

Enclosed Pneumatic Power Clamps | Heavy-Duty Modular | Dimensions

82M-3N13..40..



with Handle Option
82M-3N13H*40**

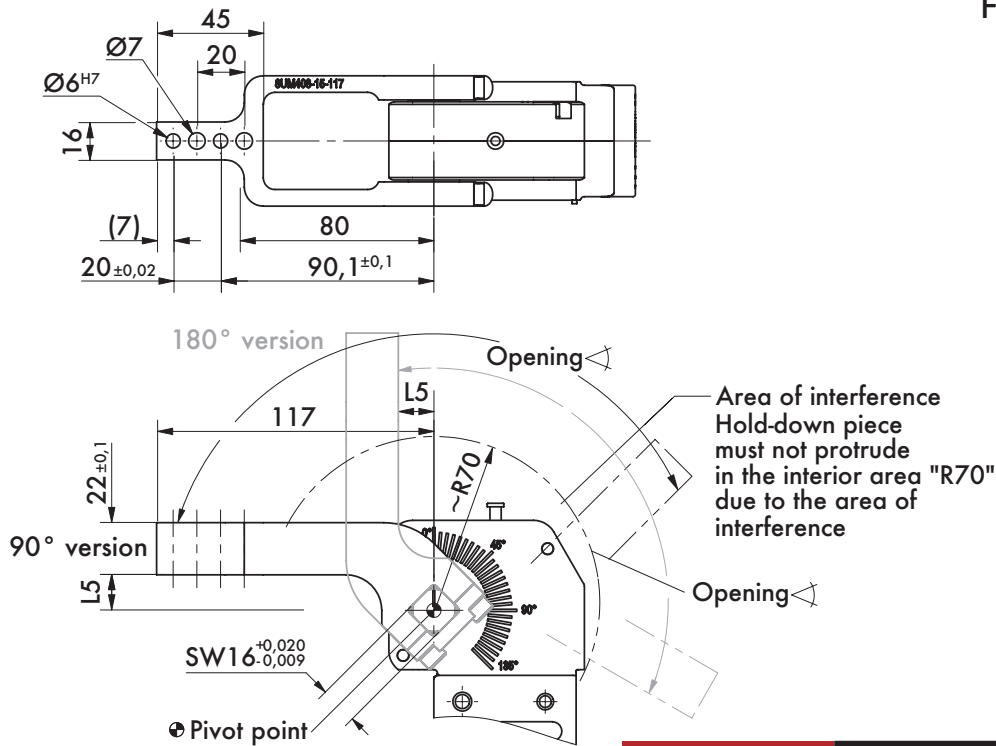
See page PC-PPC-40 for
cylinder options **40** and **4A**.

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-3N13, 40MM ACCESSORIES

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

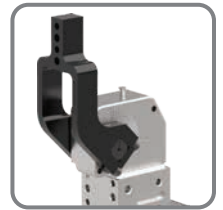
For Size 40mm NAAMS*
U-Arm (Steel)



90° Right



180° Right



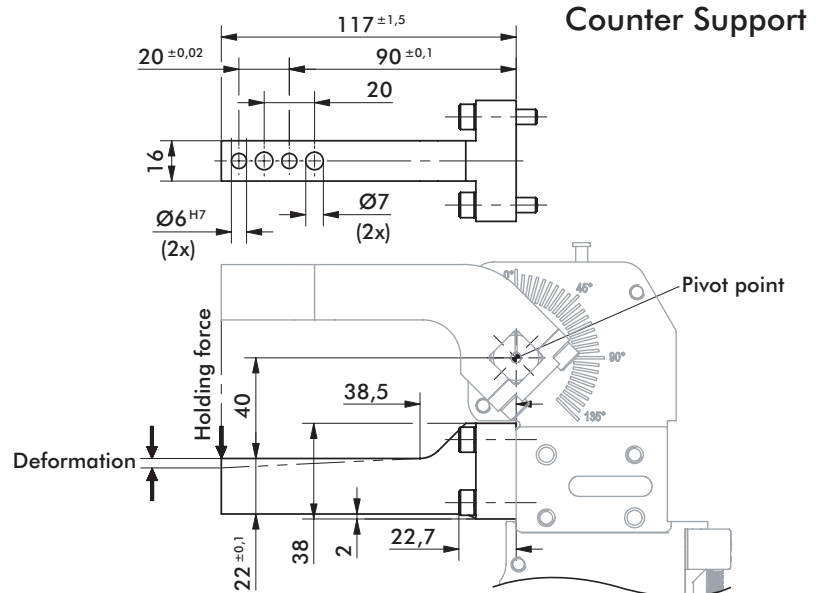
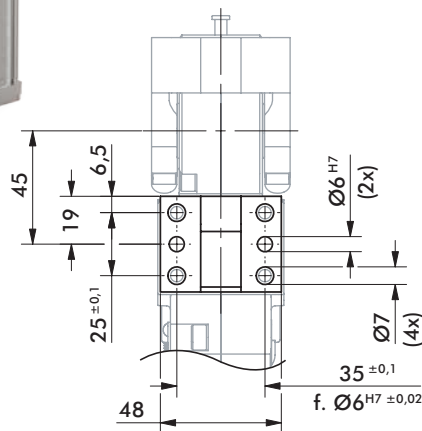
8UM408-00-117
8UM408-15-117
8UM408-25-117
8UM408-45-117

Arm Model No.	Max. Opening 90° Version	Max. Opening 180° Version	Weight (kg)	L5
8UM408-00-117	135°	105°	0,46	0
8UM408-15-117		120°	0,51	15
8UM408-25-117		135°	0,52	25
8UM408-45-117	130°		0,58	45

*Compatible with NAAMS Clamp Arm Shaft option 13 only.



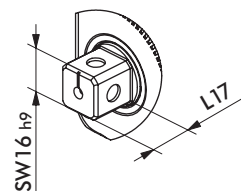
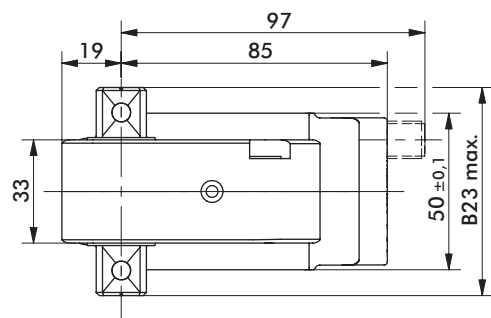
View:
Counter support
without screws and pins



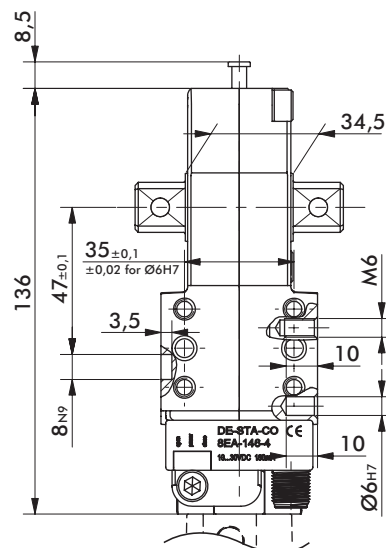
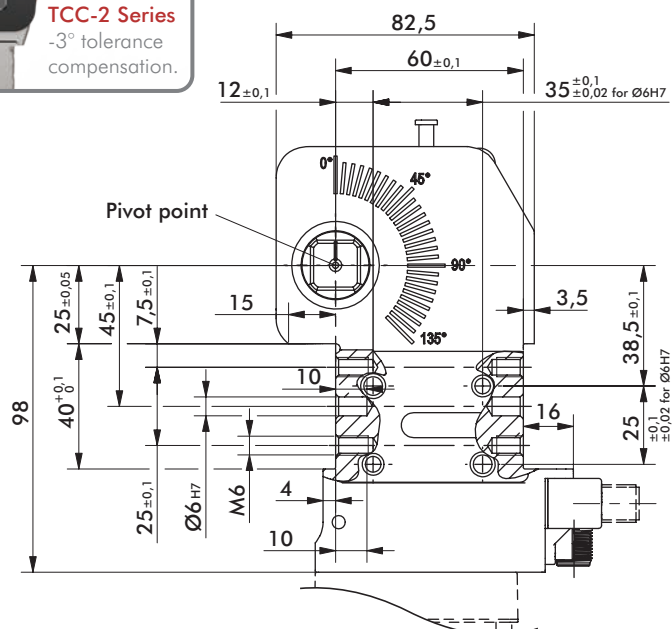
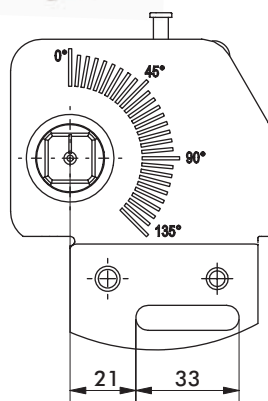
Arm Model No.	Holding Force (N)	Deformation (mm)	Weight (kg)
82ZB-190-1	2000	0,4	0,22

For Handle and Anti-Ramming device Accessories see pages PC-PPC-47 & 48.

Enclosed Pneumatic Power Clamps | Heavy-Duty Modular | Dimensions



Model	B23 Max.	L17
82M-3.03/TCC-2.03..4...	54,5	9
82M-3.23/TCC-2.23..4...	66,5	16



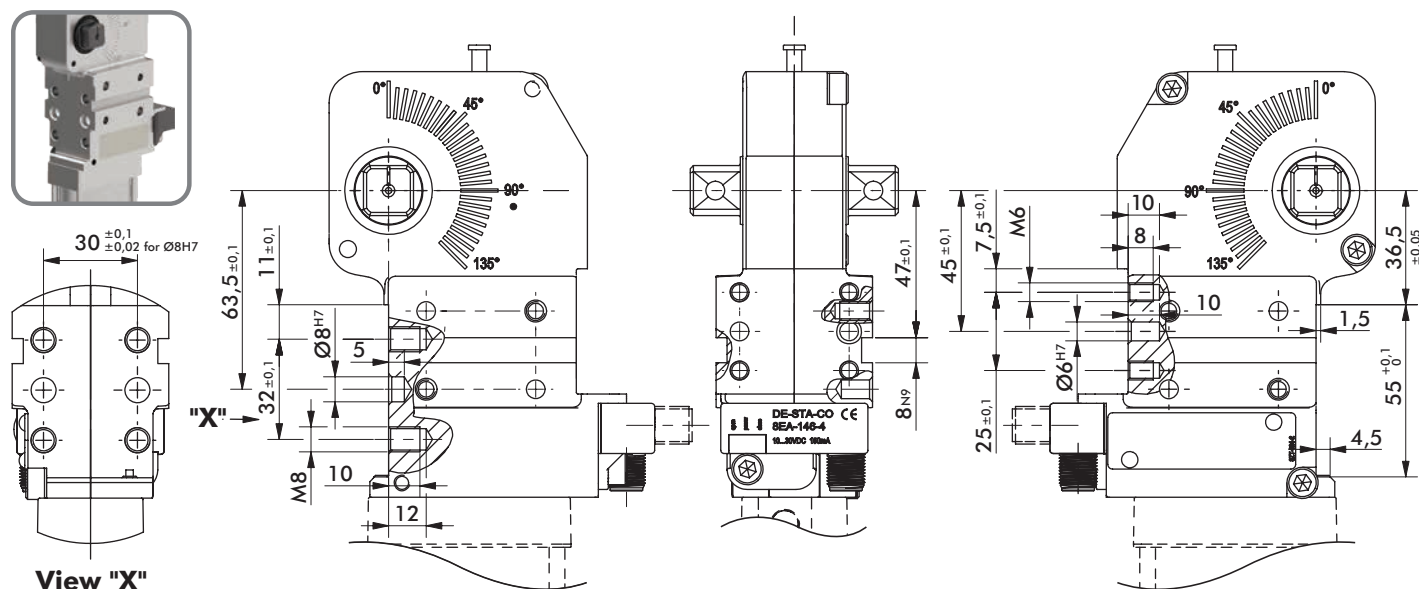
mm [INCH]



THIRD ANGLE
PROJECTION

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.
Safe "holding/clamping" only under pressurization (for TCC models only).

Dimensions below for "B" mounting surfaces. See above for additional base unit dimensions.

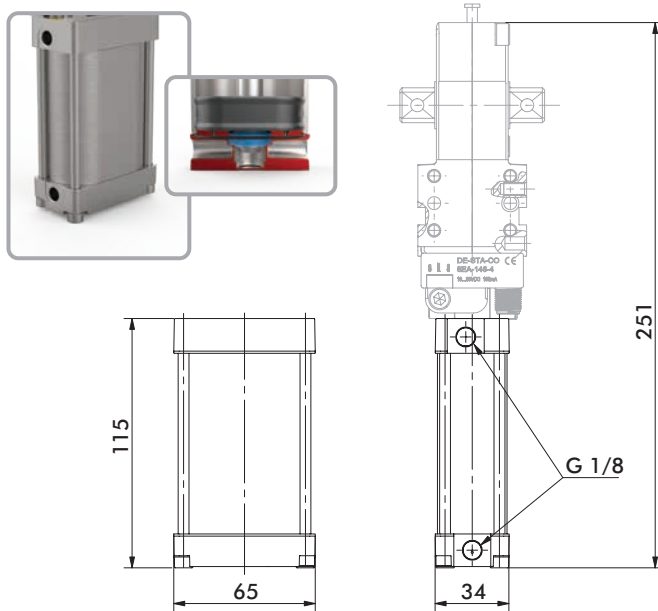


82M-3./TCC-2, 40MM

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

82M-3/TCC-2.....40

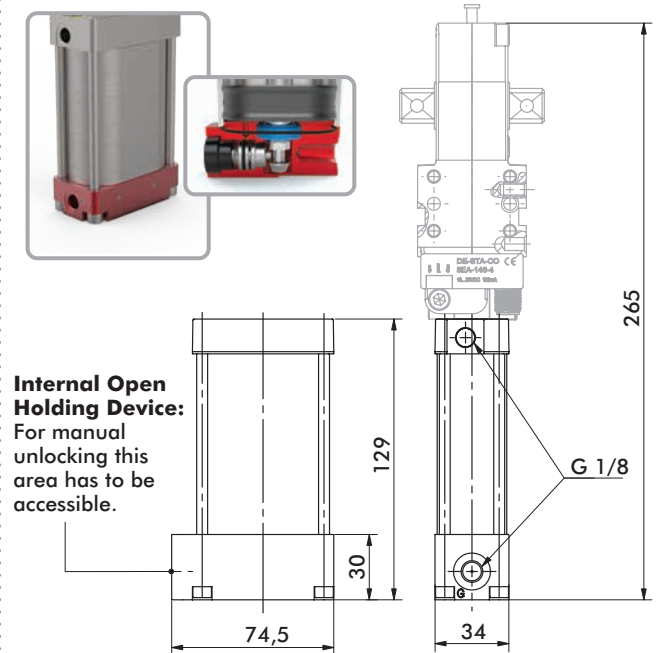
Standard Cylinder



82M-3/TCC-2.....4A

Cylinder with Internal Hold Open Device

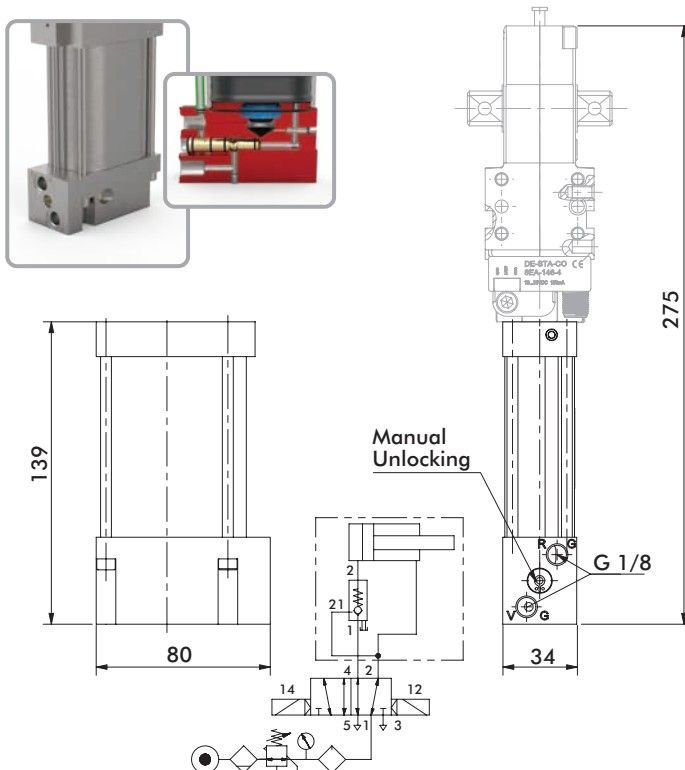
Securely holds clamp in the open position.



TCC-2.....4C

Cylinder with Unlock-able Return Valve

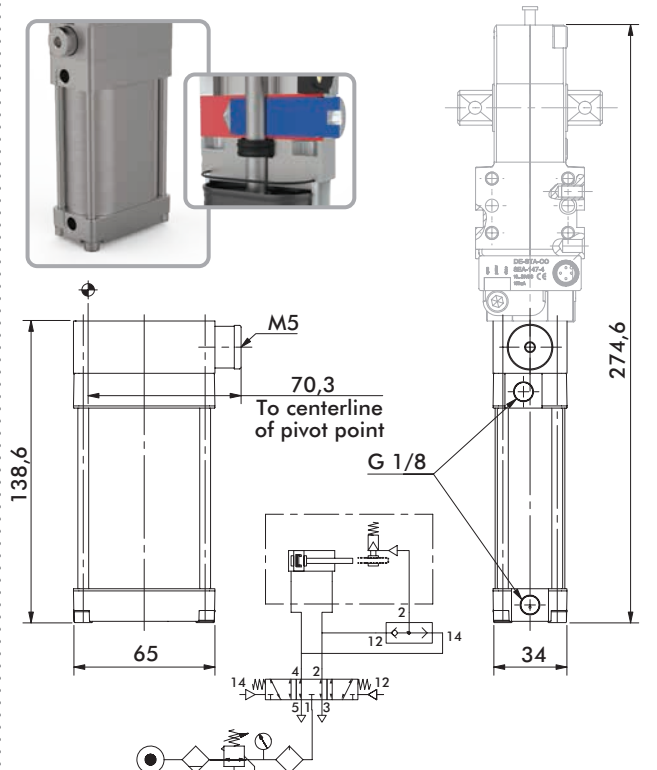
Pneumatically holds clamp arm in the closed position when air is released.



TCC-2.....4V

Cylinder with Rod Locking Device

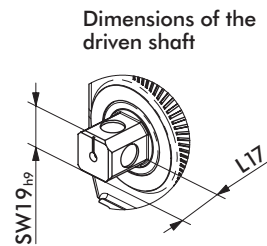
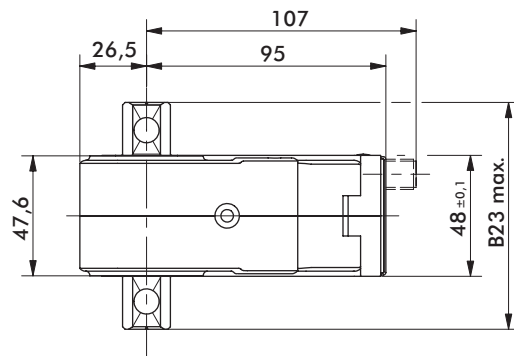
Uses friction to clamp rod at any point between open and closed positions.



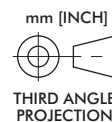
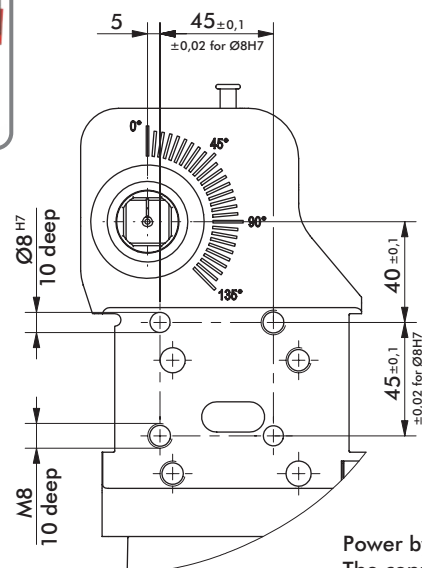
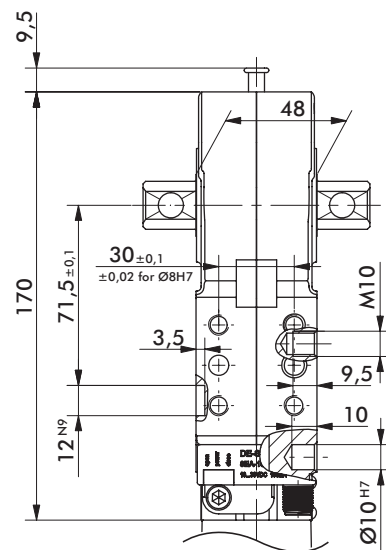
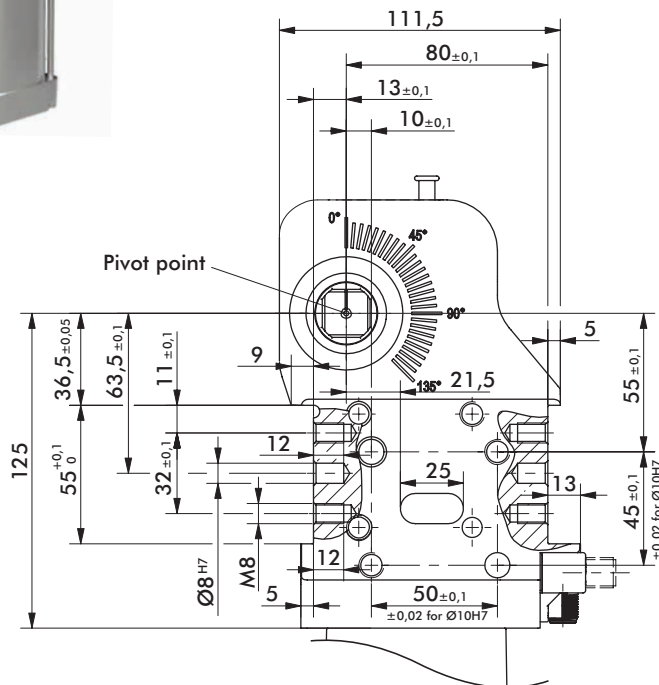
82M-3/TCC-2, 50MM

Enclosed Pneumatic Power Clamps | Heavy-Duty Modular | Dimensions

82M-3E/TCC-2E....5.



Model	B23 Max.	L17
82M-3E03/TCC-2E03..5...	72	12
82M-3E23/TCC-2E23..5...	90	21



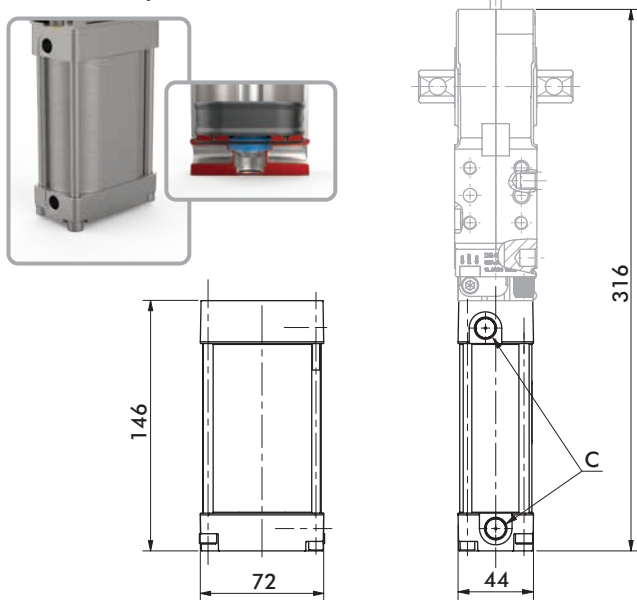
Power by compressed air, max. 6 bar operation with oil-free air is permissible.
The connector socket and the cable are not supplied with the unit.
Safe "holding/clamping" only under pressurization (for TCC models only).

82M-3/TCC-2, 50MM

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

82M-3E/TCC-2E...50/5N

Standard Cylinder



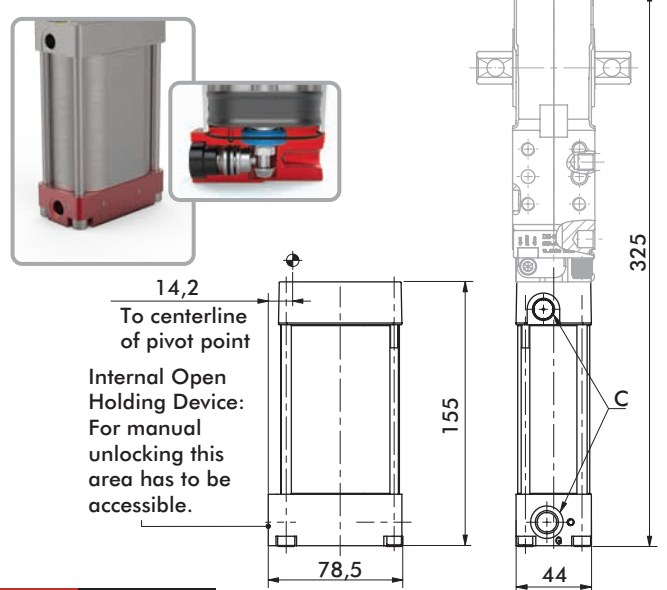
Ports	C
50	G1/4
5N	1/4-18 NPT

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

82M-3E/TCC-2E...5A/5B

Cylinder with Internal Hold Open Device

Securely holds clamp in the open position.



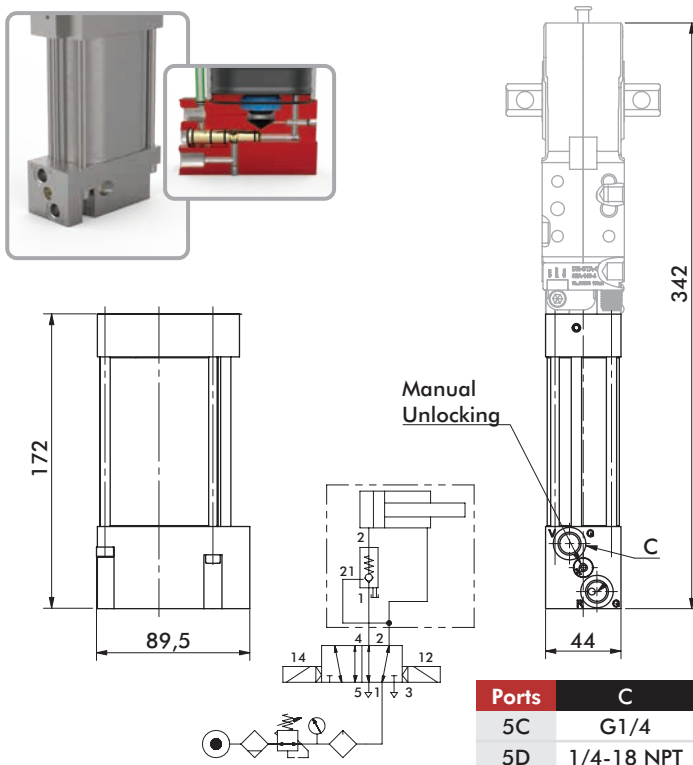
Ports	C
5A	G1/4
5B	1/4-18 NPT

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

TCC-2E...5C/5D

Cylinder with Unlock-able Return Valve

Pneumatically holds clamp arm in the closed position when air is released.

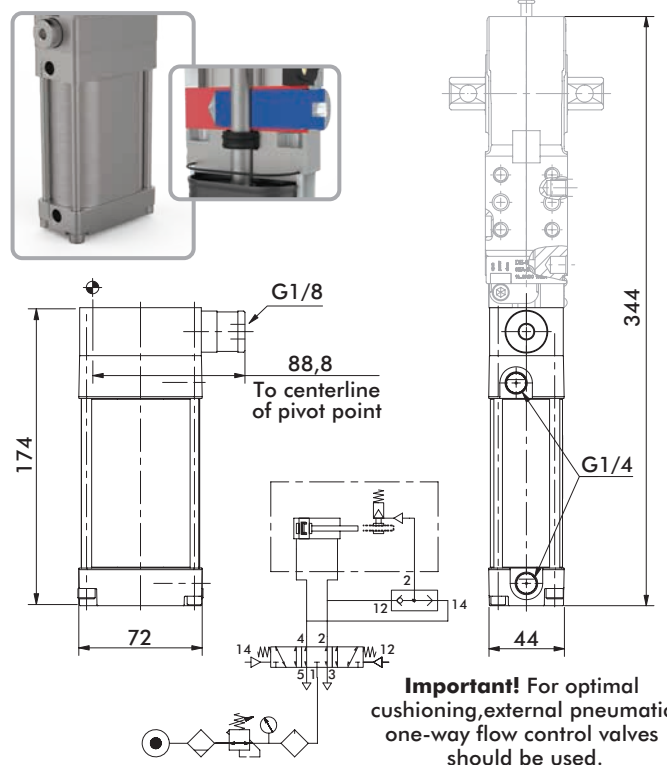


Ports	C
5C	G1/4
5D	1/4-18 NPT

TCC-2E...5V

Cylinder with Rod Locking Device

Uses friction to clamp rod at any point between open and closed positions.

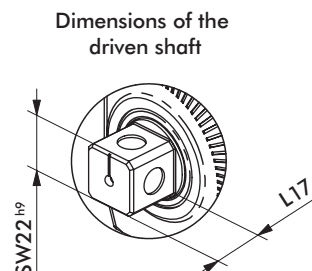
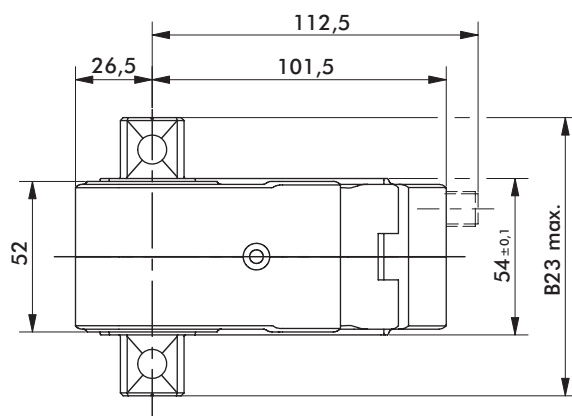


Important! For optimal cushioning, external pneumatic one-way flow control valves should be used.

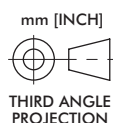
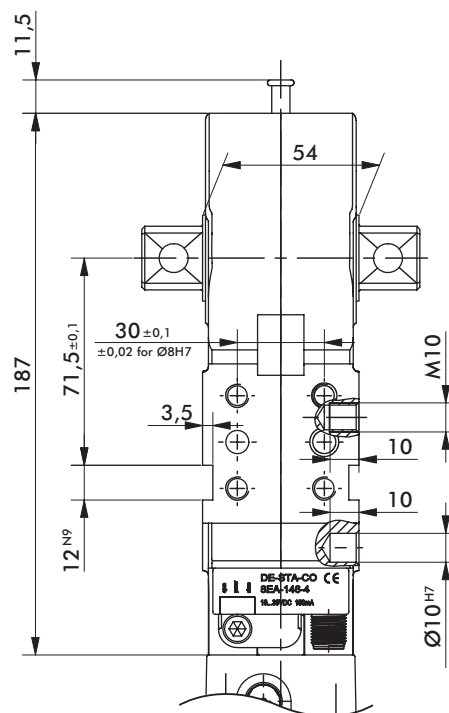
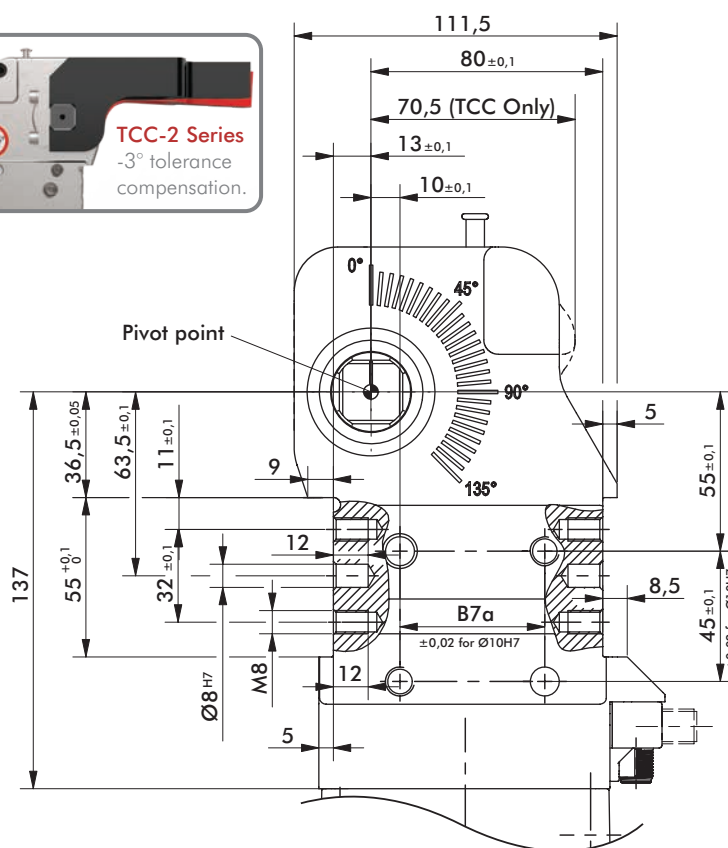
82M-3./TCC-2, 63MM

Enclosed Pneumatic Power Clamps | Heavy-Duty Modular | Dimensions

82M-3/TCC-2.....6.



Model	B7a ±0,1	B23 Max.	L17
82M-3E03/TCC-2E03..6...	50	78	12
82M-3N03/TCC-2N03..6...	55		
82M-3E23/TCC-2E23..6...	50	96	21
82M-3N23/TCC-2N23..6...	55		
82M-3ND0..6...	55	106	26



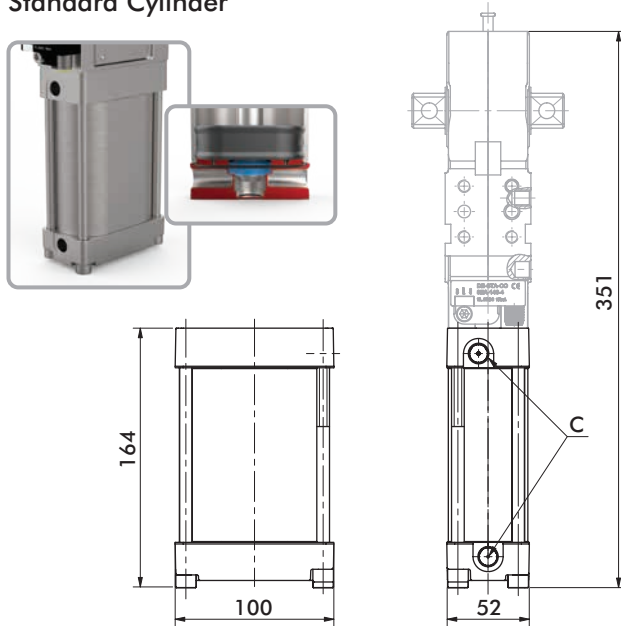
Power by compressed air, max. 6 bar operation with oil-free air is permissible.
The connector socket and the cable are not supplied with the unit.
Safe "holding/clamping" only under pressurization (for TCC models only).

82M-3./TCC-2, 63MM

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

82M-3/TCC-2.....63/6N

Standard Cylinder



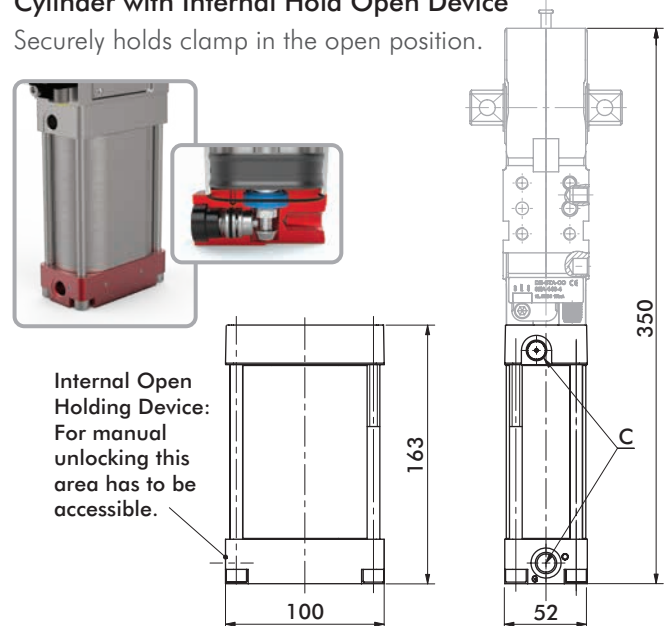
Ports	C
63	G1/4
6N	1/4-18 NPT

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

82M-3/TCC-2.....6A/6B

Cylinder with Internal Hold Open Device

Securely holds clamp in the open position.



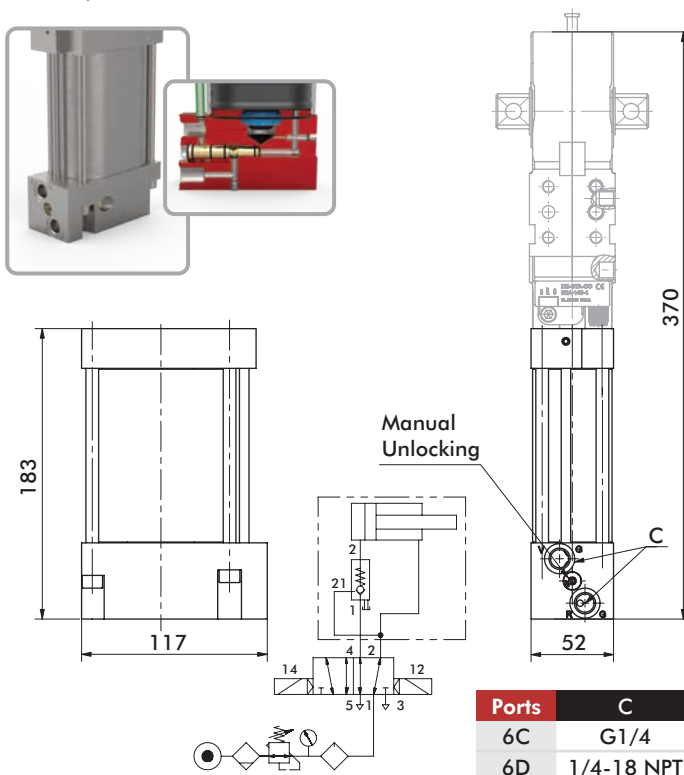
Ports	C
6A	G1/4
6B	1/4-18 NPT

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

TCC-2.....6C/6D

Cylinder with Unlock-able Return Valve

Pneumatically holds clamp arm in the closed position when air is released.

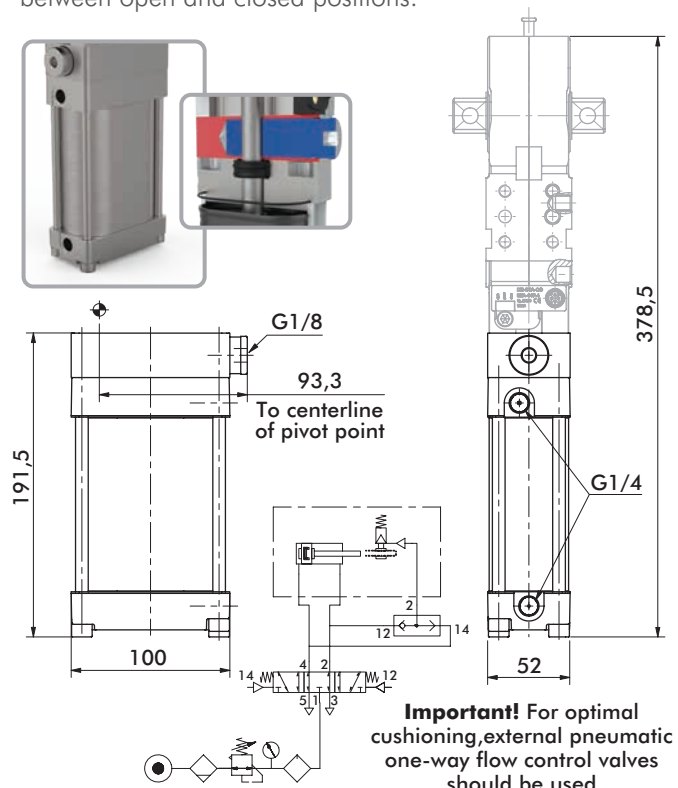


Ports	C
6C	G1/4
6D	1/4-18 NPT

TCC-2.....6V

Cylinder with Rod Locking Device

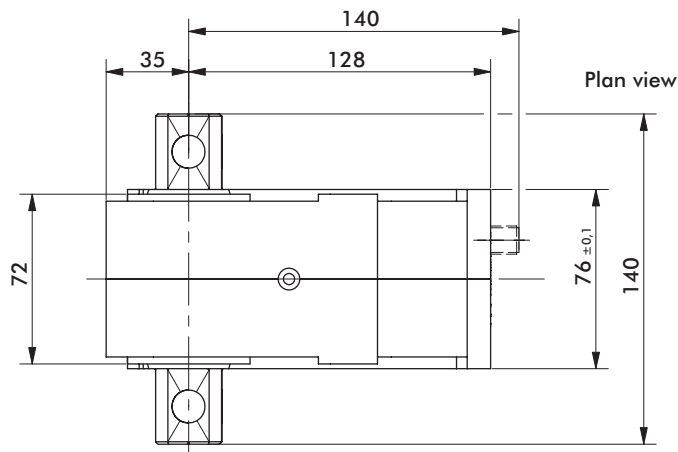
Uses friction to clamp rod at any point between open and closed positions.



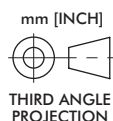
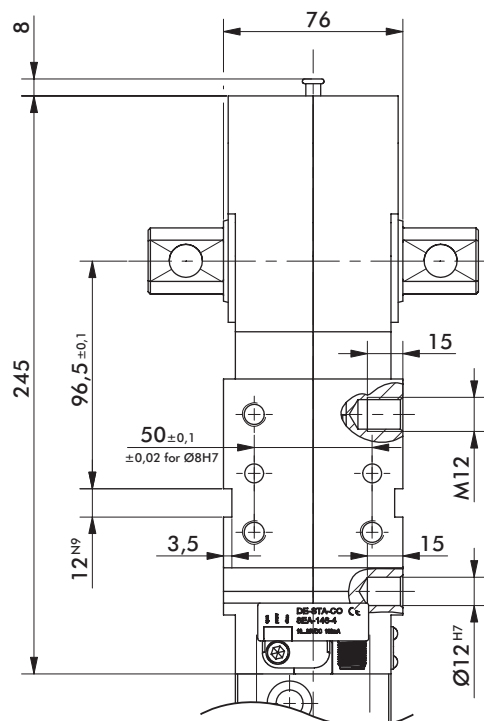
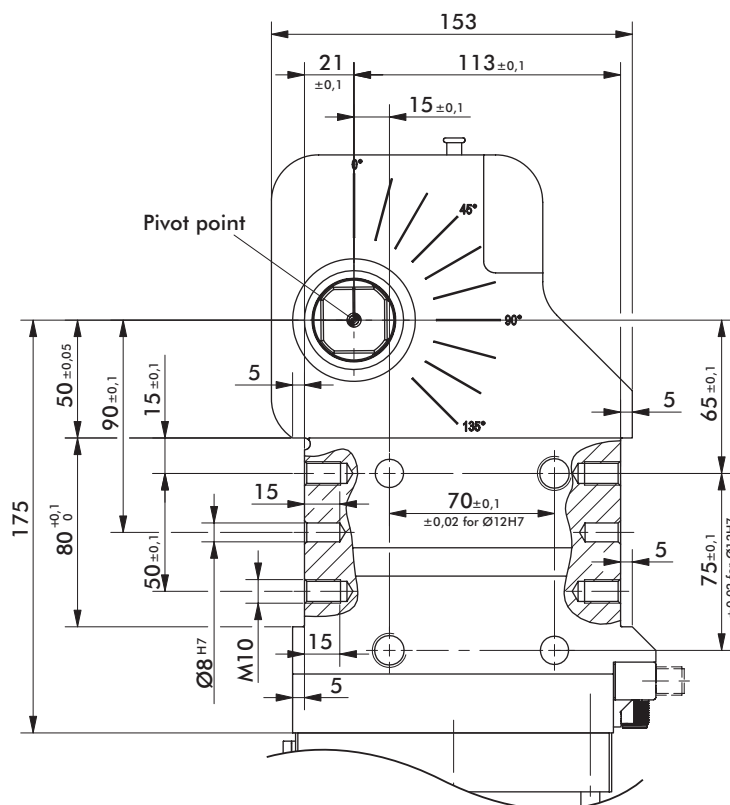
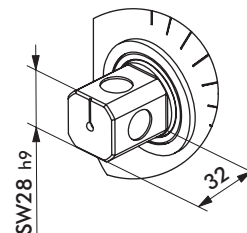
Important! For optimal cushioning, external pneumatic one-way flow control valves should be used.

Enclosed Pneumatic Power Clamps | Heavy-Duty Modular | Dimensions

82M-3E....8.



Dimensions of the driven shaft



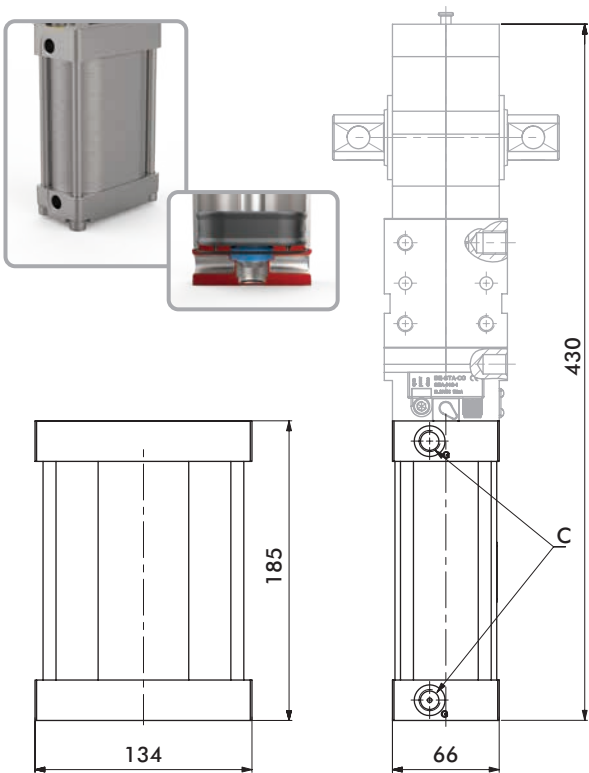
Power by compressed air, max. 6 bar operation with oil-free air is permissible.
The connector socket and the cable are not supplied with the unit.

82M-3., 80MM

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

82M-3E...80/8N

Standard Cylinder



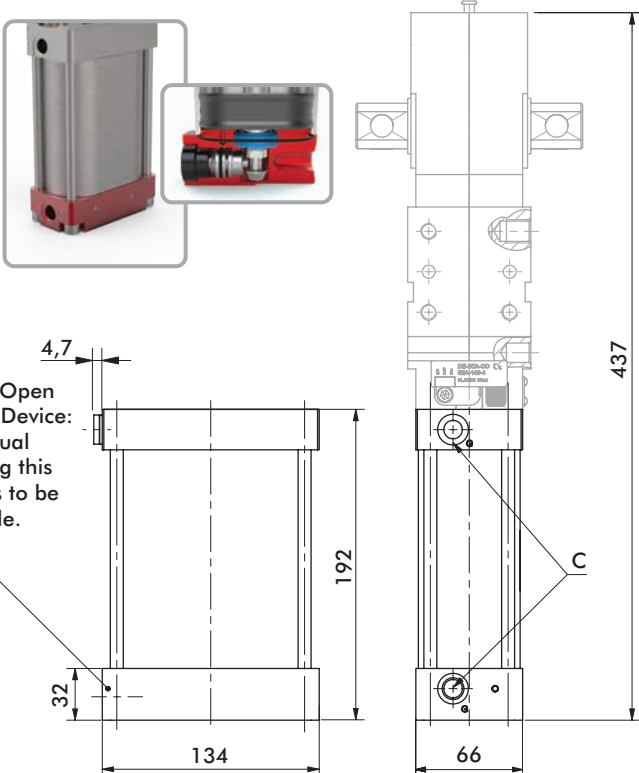
Ports	C
80	G1/4
8N	1/4-18 NPT

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

82M-3E...8A/8B

Cylinder with Internal Hold Open Device

Securely holds clamp in the open position.



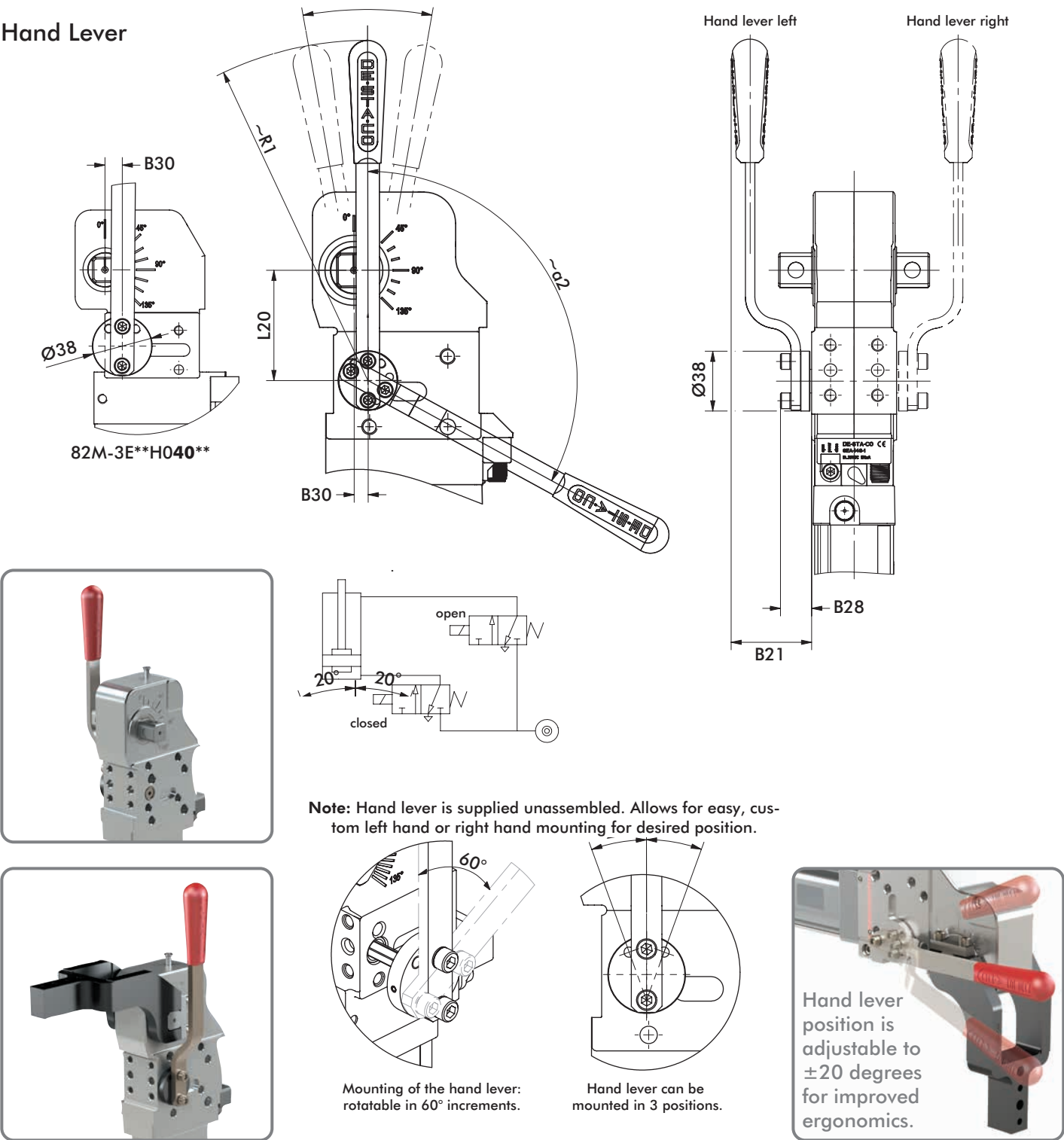
Ports	C
8A	G1/4
8B	1/4-18 NPT

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

82M-3. ACCESSORIES

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

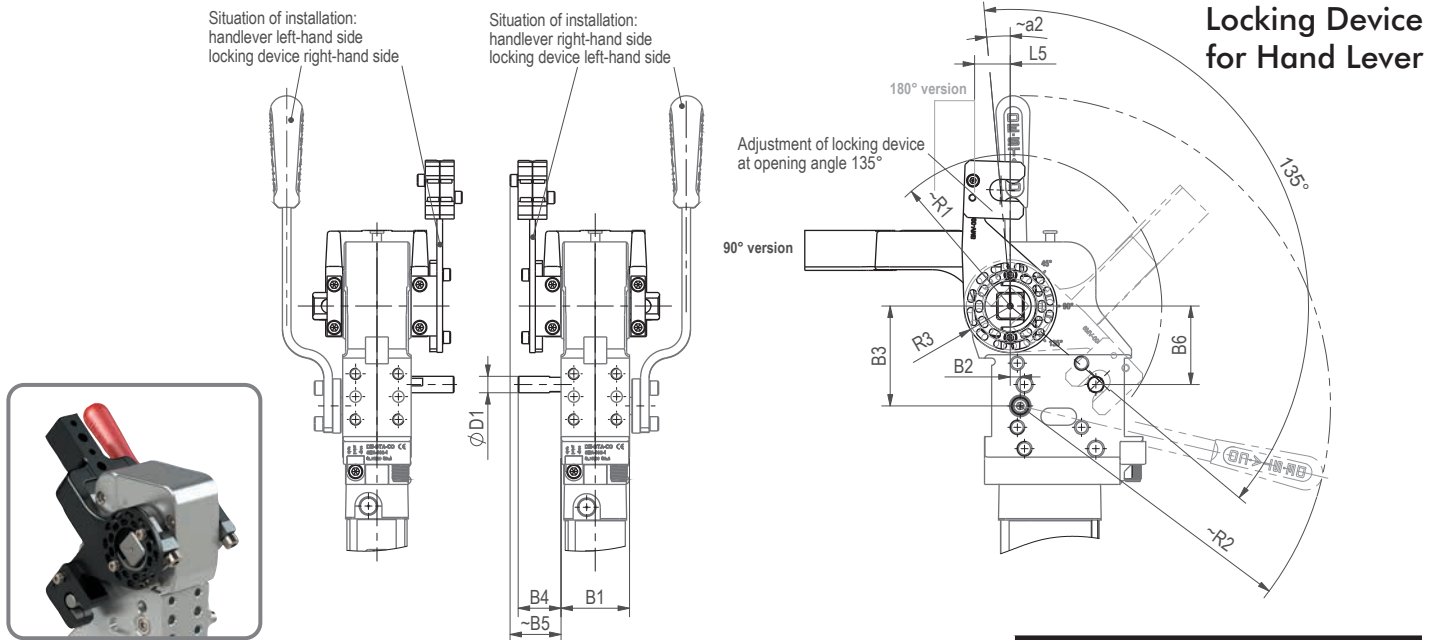
Hand Lever



Model No.					Swivel Angle $\alpha 2$ (with reference to opening angle of clamp arm)									
	B21	B28	L20	$\sim R1$	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°
82M-3...H040..	27	24	48,5	160	0°	31°	41°	49°	58°	69°	88°	113°	134°	144°
82M-3...H05...	52	20	70	218	-1°	30°	39°	46°	53°	61°	70°	81°	92°	103°
82M-3...H06..	52	20	70,5	218	0°	30°	39°	47°	56°	66°	79°	94°	108°	119°
82M-3...H08..	56	24	82	268	-1°	28°	37°	45°	53°	63°	75°	92°	107°	117°

82M-3. ACCESSORIES

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



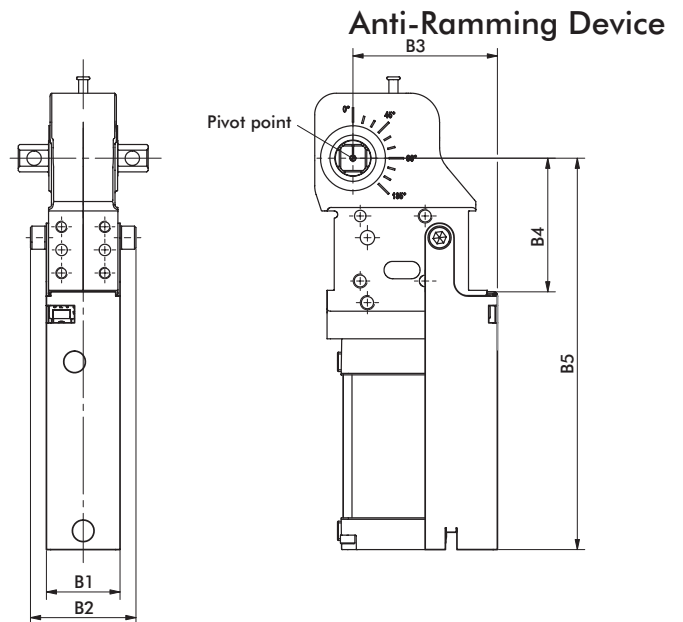
Order No.	For Model	B1	B2	B3	B4	B5	B6	ØD1	R1	R2	R3	α2	Limited Setting Options					
													Height of the clamping arm: L5 max.					
													90° version		180° version			
													45	75	00	15	25	45
82ZB-162-1	82M-3...H040..*	50	11	48,5	25	31	38,5	10,5	81	160	27	6	120°	—	105°	120°	120°	120°
82ZB-084-1	82M-3...H05...	48	7	70	30	36	55	11,5	107	218	32,5	6	120°	—	—	105°	120°	—
82ZB-039-1	82M-3...H06...	54	9	70,5	30	36	55	11,5	107	210	32,5	6	110°	105°	—	105°	120°	—

*Not compatible with Size 40 Option N NAAMS Side Mounting.

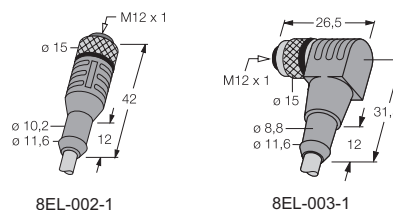


Anti-ramming device is only available for standard cylinder with 82M-3...00..00 and 82M-3...00..L8

Order No.	For Model	B1	B2	B3	B4	B5
8AB-151-1	82M-3.....40..	53	66,5	89,5	65,5	210,5
8AB-152-1	82M-3.....5...	51	73	100	92,5	271
8AB-153-1	82M-3.....6...	57	79	120	104,5	296
8AB-154-1	82M-3.....8...	79	105,5	148	142,5	360



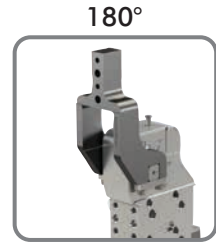
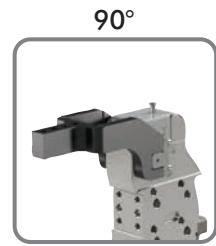
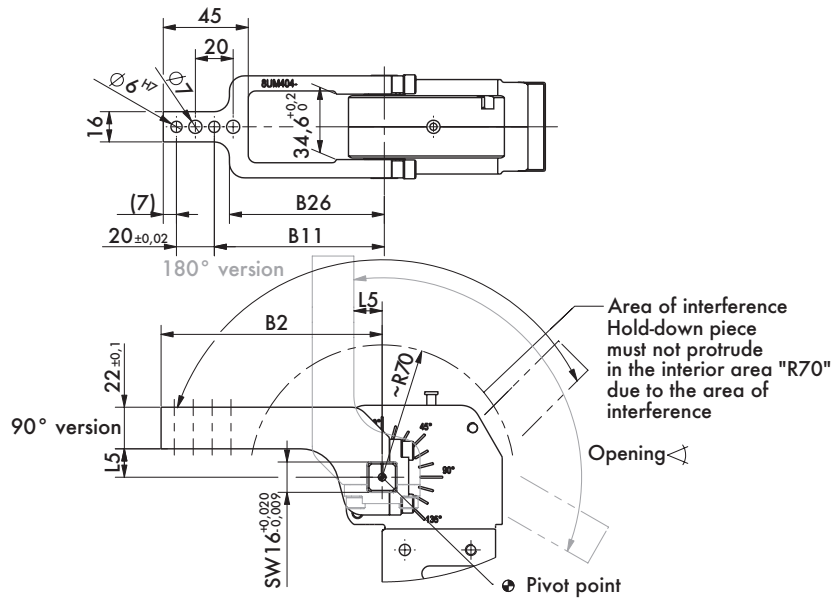
Order No.	Description
8EL-002-1	M12x1, Straight, 5-pin Connector with 5m Cable
8EL-003-1	M12x1, Angular, 4-pin Connector with 5m Cable



U-ARMS CENTER (ALUMINUM)

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

For Size 40mm*

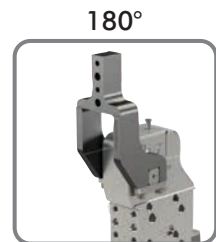
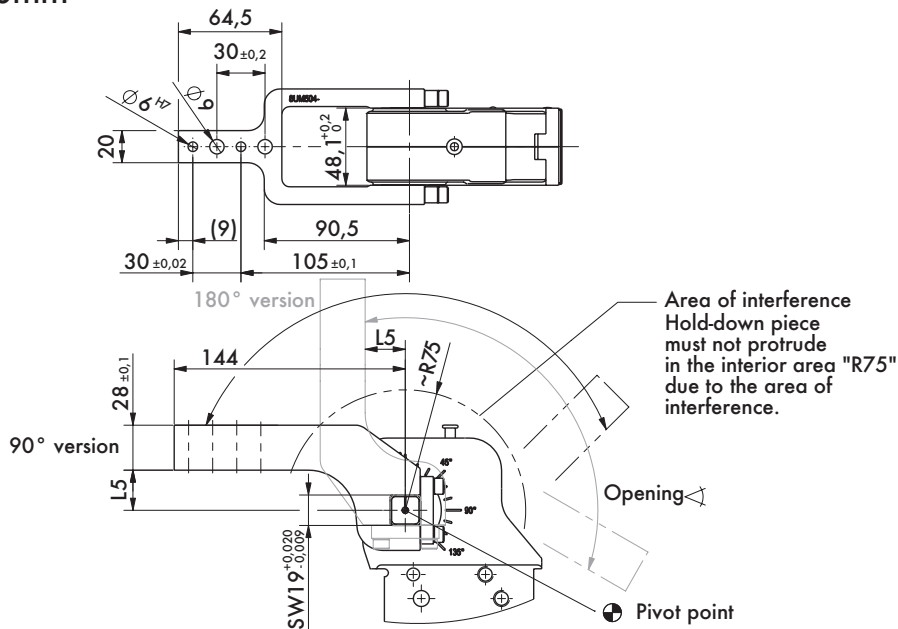


8UM404-00-117
8UM404-15-117
8UM404-25-117
8UM404-45-107

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

*Not compatible with NAAMS Clamp Arm Shaft option 13. See page PC-PPC-38.

For Size 50mm



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

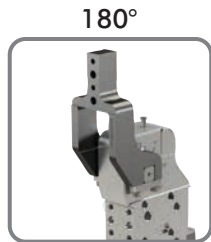
Arm Model No.	Max. Opening 90° Version	Max. Opening 180° Version	Weight (kg)	L5
8UM504-15-144	135°	105°	0,44	15
8UM504-25-144		120°	0,45	25
8UM504-45-144		135°	0,48	45

U-ARMS CENTER (ALUMINUM)

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

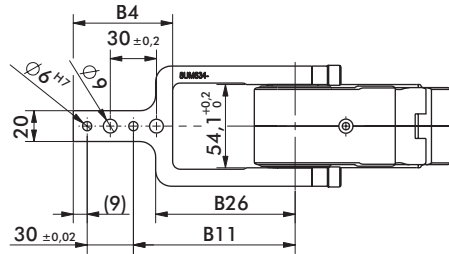


90°

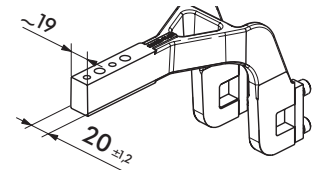


180°

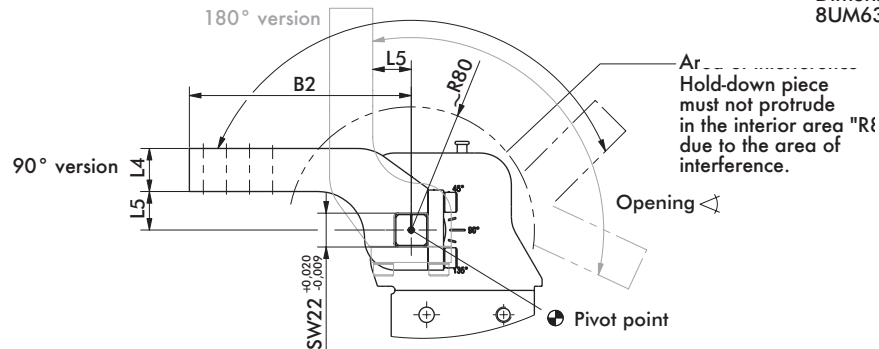
8UM634-15-144
8UM634-25-144
8UM634-45-144
8UM631-75-204*



For Size 63mm



Dimensions are only for
8UM631-75-204

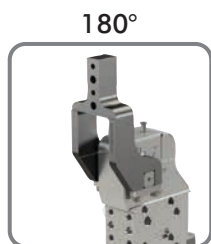


Arm Model No.	Max. Opening 90° Version	Max. Opening 180° Version	Weight (kg)	B2	B4	B11 ±0,1	B26	L4 ±0,1	L5
8UM634-15-144	135°	105°	0,50						15
8UM634-25-144		120°	0,53	144	64,5	105	90,5	28	25
8UM634-45-144		135°	0,56						45
8UM631-75-204*			1,7	204	82	165	107	30	75

*only steel version available.

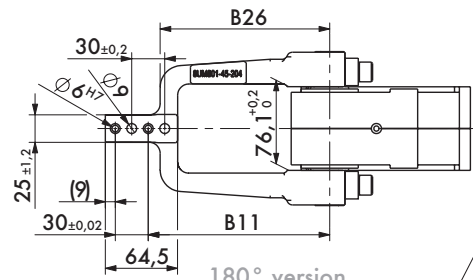


90°

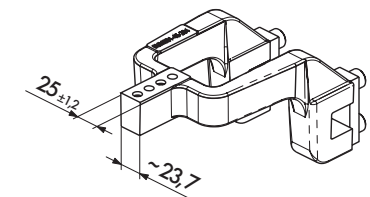
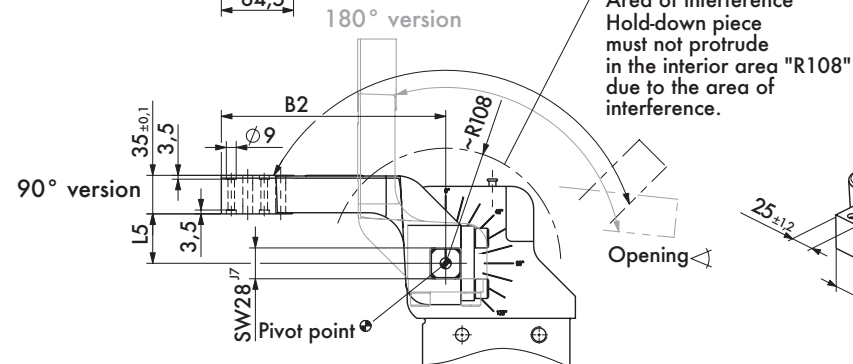


180°

8JG-169-2-01*
8UM801-45-204*



For Size 80mm



Arm Model No.	Max. Opening 90° Version	Max. Opening 180° Version	Weight (kg)	B2	B11 ±0,1	B26	L5** ±0,2
8JG-169-2-01*	135°	105°	3,5	179	140	129	20
8UM801-45-204*		135°	4,1	204	165	154	45

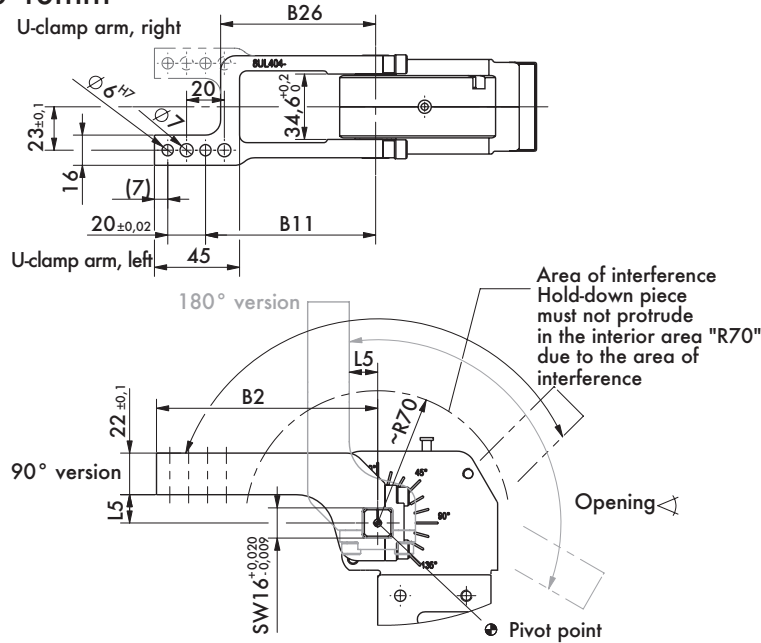
*only steel version available.

** Tolerance measured 80mm from pivot point.

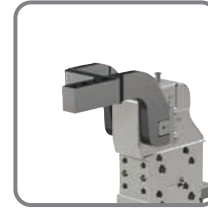
U-ARMS OFFSET (ALUMINUM)

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

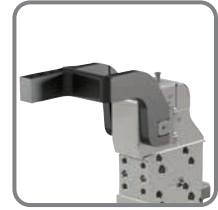
For Size 40mm*



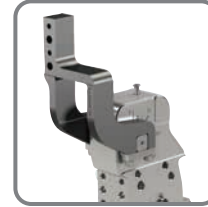
90° Left



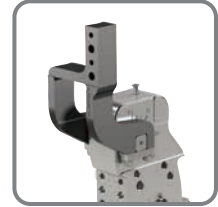
90° Right



180° Right*



180° Left*



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

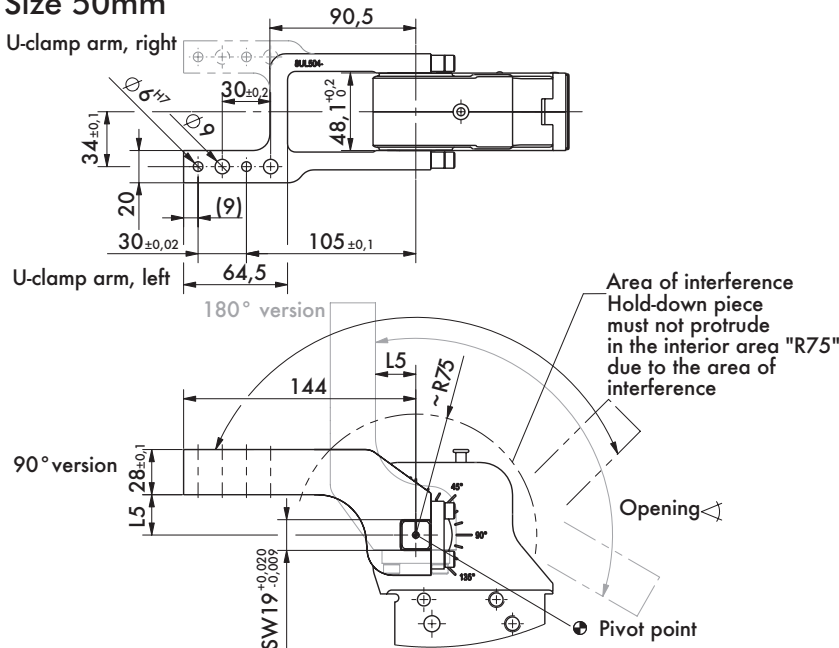
8UR404-00-117
8UR404-15-117
8UR404-25-117
8UR404-45-107

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

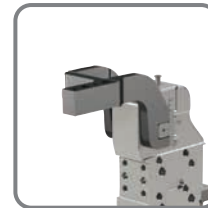
Arm Model No.	Max. Opening 90° Version	Max. Opening 180° Version	Weight (kg)	B2	B11 ±0,1	B26	L5
8U(•)404-00-117	135°	105°	0,23	117	90	82	0
8U(•)404-15-117		120°	0,24				15
8U(•)404-25-117		135°	0,25				25
8U(•)404-45-107	130°		0,25	107	80	72	45

*Not compatible with NAAMS Clamp Arm Shaft option 13.

For Size 50mm



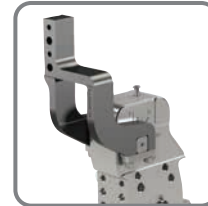
90° Left



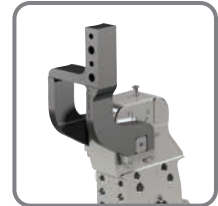
90° Right



180° Right*



180° Left*



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

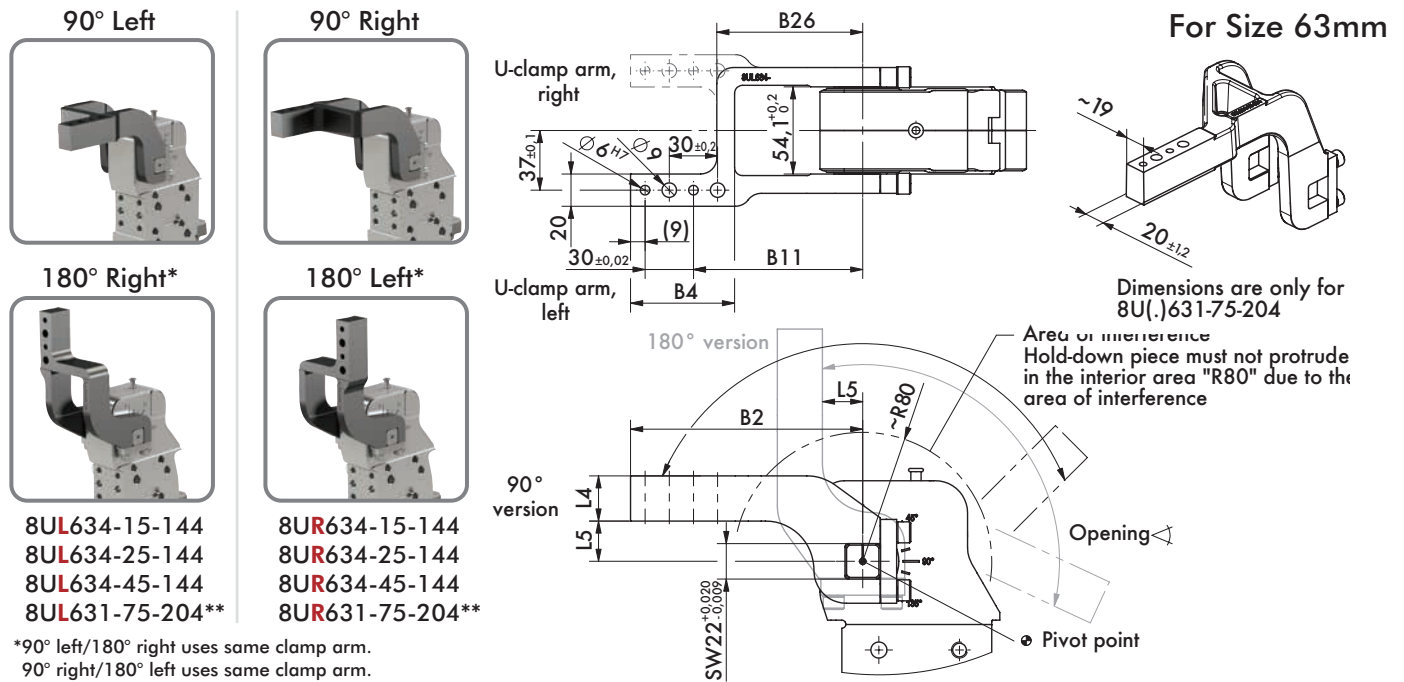
8UR504-15-144
8UR504-25-144
8UR504-45-144

*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

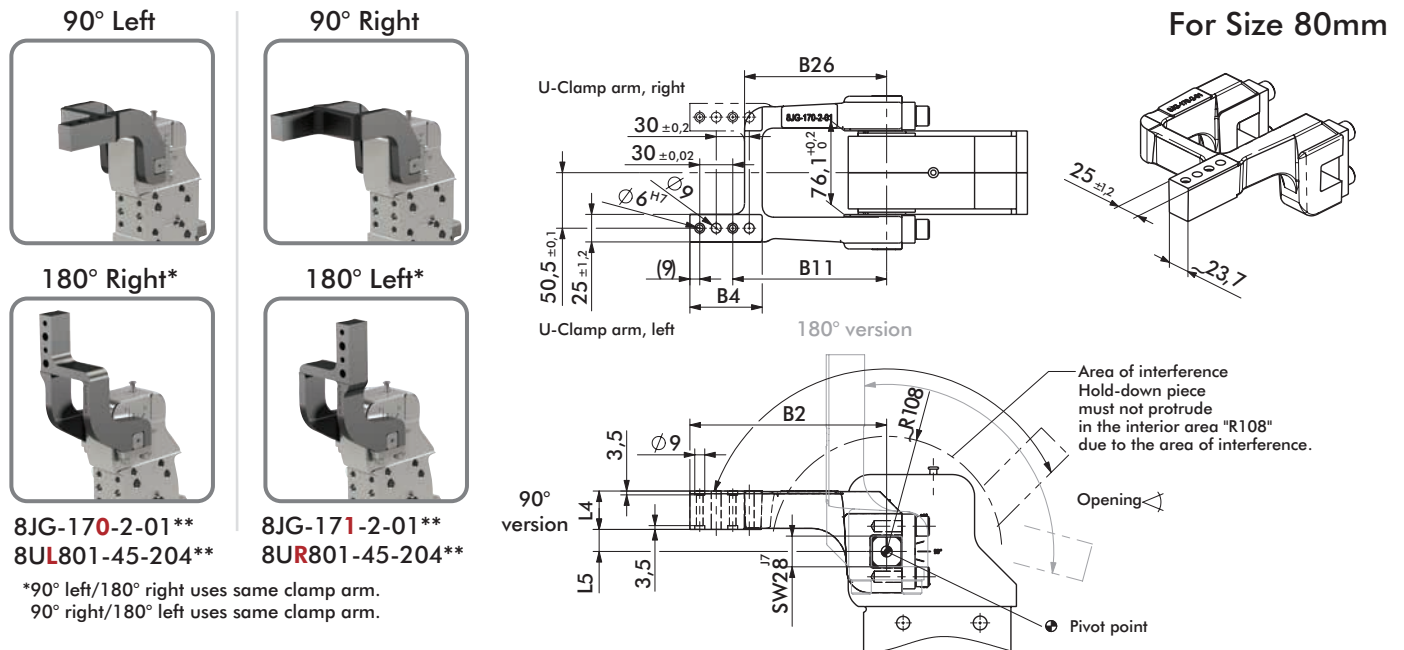
U-ARMS OFFSET (ALUMINUM)

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



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	144	64,5	105	90,5	28	15
8U(•)634-25-144		120°	0,54						25
8U(•)634-45-144		135°	0,58						45
8U(•)631-75-204**			1,9						75

**only steel version available.



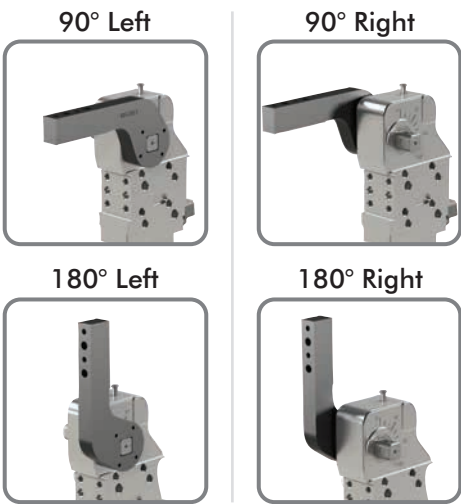
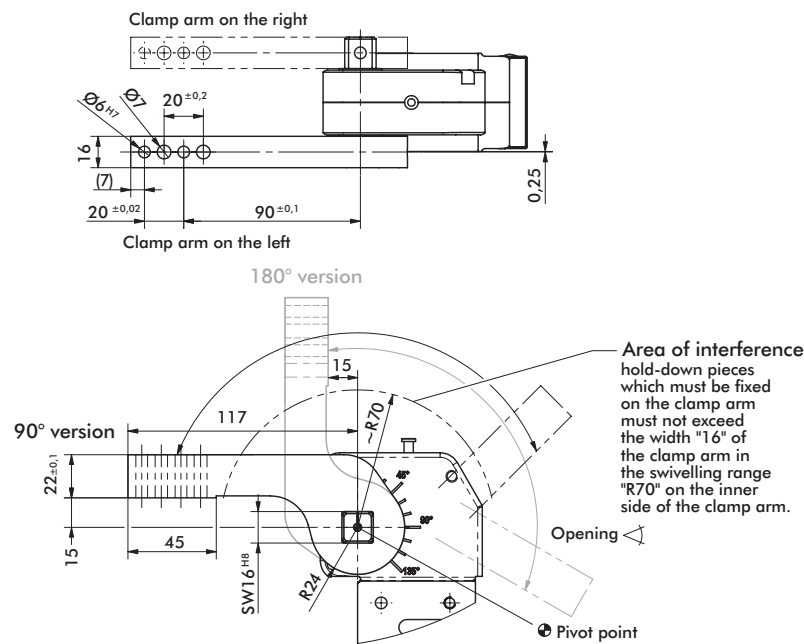
Arm Model No.	Max. Opening 90° Version	Max. Opening 180° Version	Weight (kg)	B2	B4	B11 ±0,1	B26	L4 ±0,1	L5
8JG-17(•)-2-01**	135°	135°	3,5	179	65	140	129	35	20
8U(•)801-45-204**			4,3	204	66	165	154		45

**only steel version available.

LATERAL (SIDE) ARMS

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

For Size 40mm*

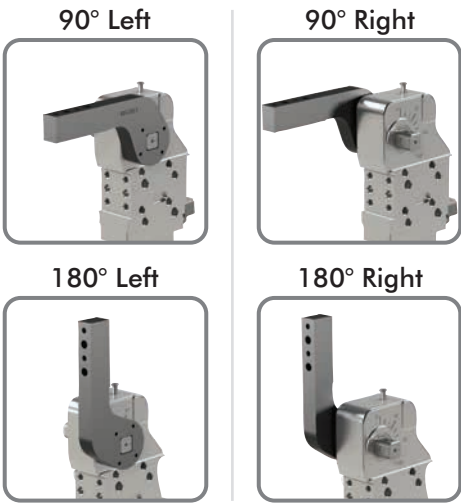
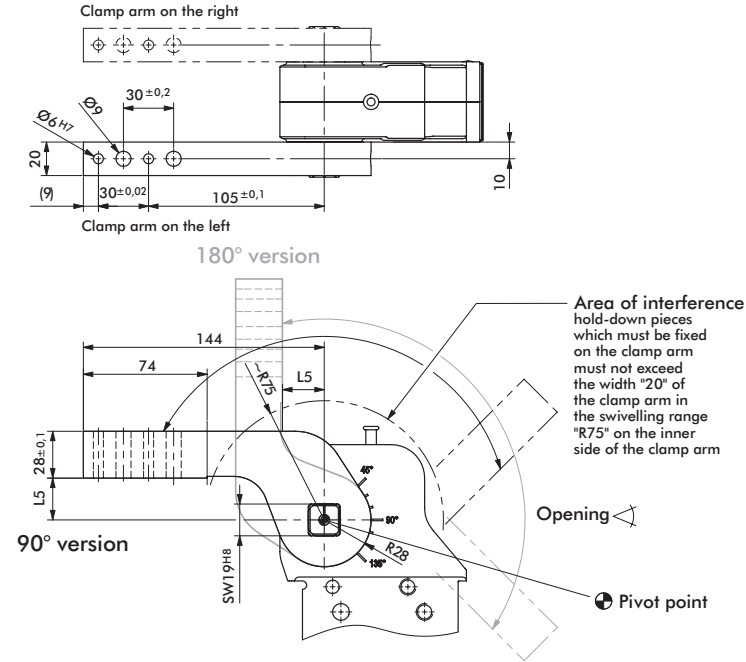


8S401-15-117

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.
*Not compatible with NAAMS Clamp Arm Shaft option 13.

For Size 50mm



8JG-070-1-01
8S501-25-144

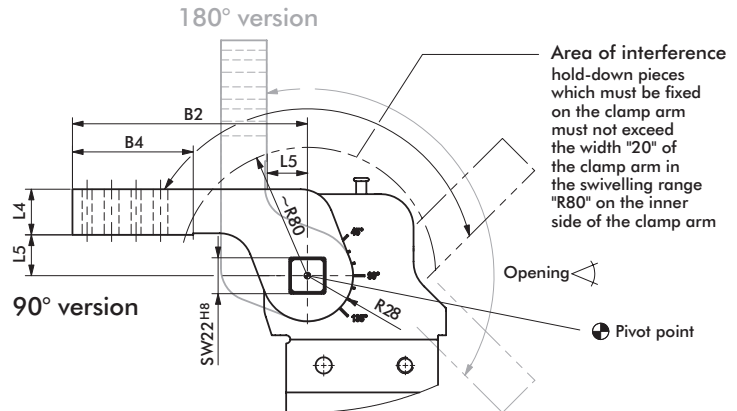
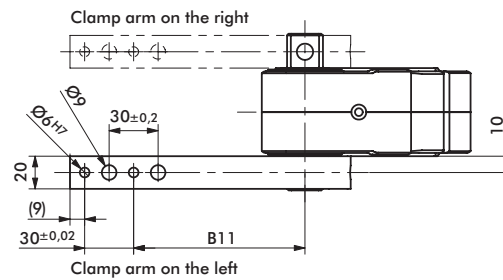
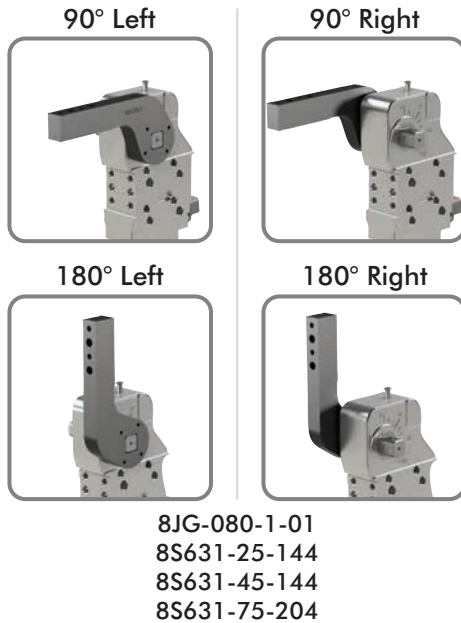
Arm Model No.	Max. Opening 90° Version	Max. Opening 180° Version	Weight (kg)	L5
8JG-070-1-01	135°	135°	0,9	15
8S501-25-144			1,0	25

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

LATERAL (SIDE) ARMS

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

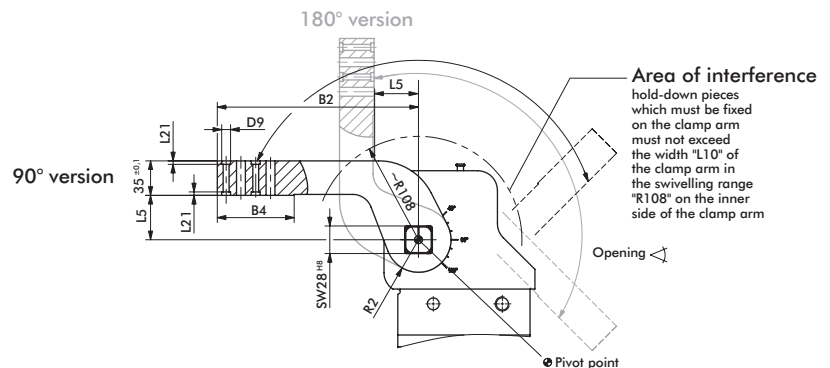
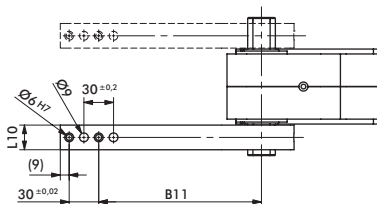
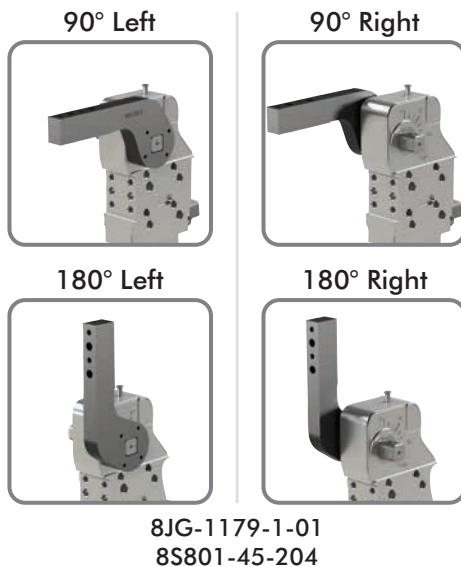
For Size 63mm



Arm Model No.	Max. Opening 90° Version	Max. Opening 180° Version	Weight (kg)	B2	B4	B11 ±0,1	L4 ±0,1	L5
8JG-080-1-01	135°	135°	0,9	144	74	105	28	15
8S631-25-144			1,0					25
8S631-45-144			1,1					45
8S631-75-204			1,5					75

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

For Size 80mm



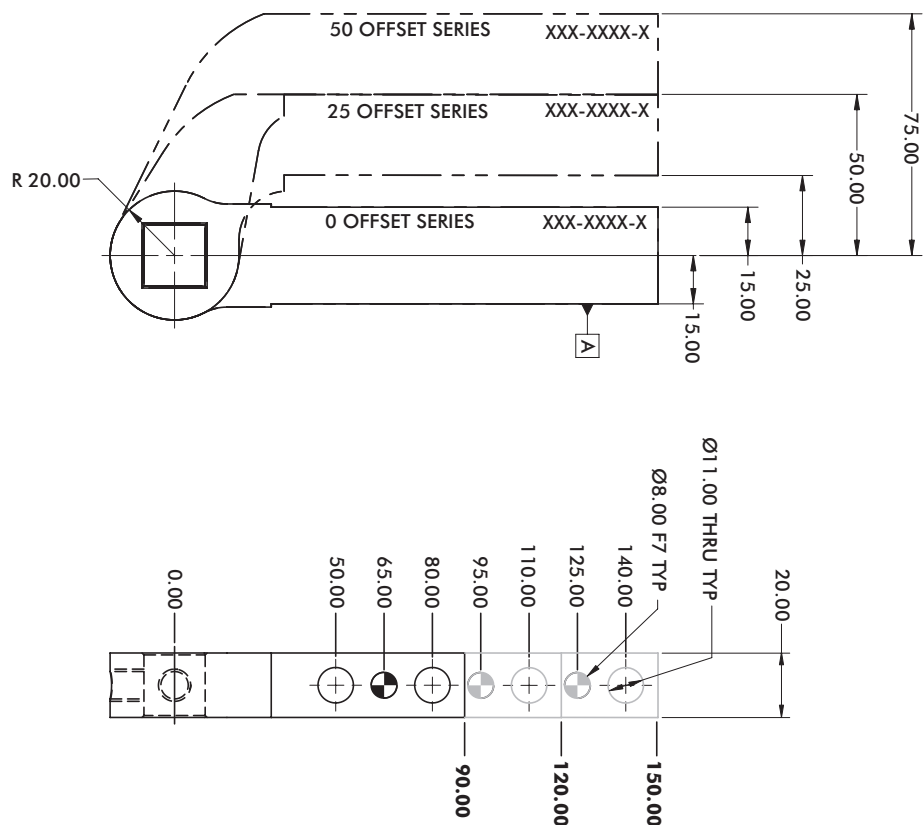
Arm Model No.	Max. Opening 90° Version	Max. Opening 180° Version	Weight (kg)	B2	B4	D9	B11 ±0,1	L5	L10	L21	R2
8JG-1179-1-01	135°	135°	2,1	179	74	-	140	20	30	-	35
8S801-45-204				204	78	9	165	45	25	3,5	33

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

LATERAL (SIDE) ARMS, NAAMS-STYLE

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

For Size 50mm



9mm Thru Hole (6.00 H7 Dowel)

90mm [3.54"] Arm Length			120mm [4.72"] Arm Length			150mm [5.90"] Arm Length		
Series	Arm Style	Model	Series	Arm Style	Model	Series	Arm Style	Model
50 Offse	▲ • 3256	B8JG-3256-1	50 Offse	▲ • 3257	B8JG-3257-1	50 Offse	▲ • 3258	B8JG-3258-1
25 Offse	▲ • 3246	B8JG-3246-1	25 Offse	▲ • 3247	B8JG-3247-1	25 Offse	▲ • 3248	B8JG-3248-1
0 Offse	▲ • 3236	B8JG-3236-1	0 Offse	▲ • 3237	B8JG-3237-1	0 Offse	▲ • 3238	B8JG-3238-1

11mm Thru Hole (8.00 F7 Dowel)

90mm [3.54"] Arm Length			120mm [4.72"] Arm Length			150mm [5.90"] Arm Length		
Series	Arm Style	Model	Series	Arm Style	Model	Series	Arm Style	Model
50 Offse	▲ • 1226	B8JG-1226-1	50 Offse	▲ • 1227	B8JG-1227-1	50 Offse	▲ • 1228	B8JG-1228-1
25 Offse	▲ • 1216	B8JG-1216-1	25 Offse	▲ • 1217	B8JG-1217-1	25 Offse	▲ • 1218	B8JG-1218-1
0 Offse	▲ • 1206	B8JG-1206-1	0 Offse	▲ • 1207	B8JG-1207-1	0 Offse	▲ • 1208	B8JG-1208-1

▲ Common in North America

(•) STANDARD ARM OFFERING

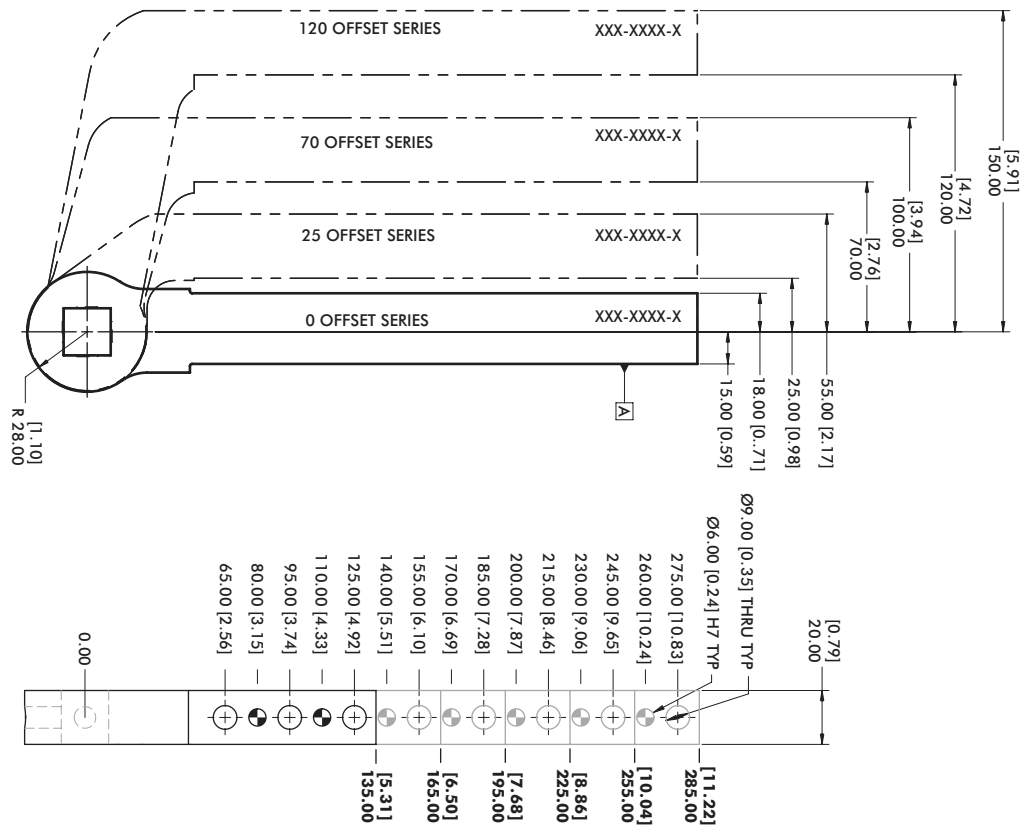
Maximum Opening Angle (shown in locked position)

Arm Styles						
1206-1208/3236-3238	135°	135°	100°	100°	N/A	N/A
1216-1218/3246-3248	135°	N/A	50°	125°	N/A	30°
1226-1228/3256-3258	125°	N/A	35°	135°	N/A	50°

LATERAL (SIDE) ARMS, NAAMS-STYLE

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

For Size 63mm with 23 Clamp Arm Shaft Option



135mm [5.31"] Arm Length

Series	Arm Style	Model
120 Offse	▲ 1543	B8JG-1543-1
70 Offse	▲ 1531	B8JG-1531-1
25 Offse	▲ 1519	B8JG-1519-1
0 Offse	▲ 1507	B8JG-1507-1

165mm [6.50"] Arm Length

Series	Arm Style	Model
120 Offse	▲ 1544	B8JG-1544-1
70 Offse	▲ 1532	B8JG-1532-1
25 Offse	▲ 1520	B8JG-1520-1
0 Offse	▲ 1508	B8JG-1508-1

195mm [7.68"] Arm Length

Series	Arm Style	Model
120 Offse	▲ 1545	B8JG-1545-1
70 Offse	▲ 1533	B8JG-1533-1
25 Offse	▲ 1521	B8JG-1521-1
0 Offse	▲ 1509	B8JG-1509-1

225mm [8.86"] Arm Length

Series	Arm Style	Model
120 Offse	▲ 1546	B8JG-1546-1
70 Offse	▲ 1534	B8JG-1534-1
25 Offse	▲ 1522	B8JG-1522-1
0 Offse	▲ 1510	B8JG-1510-1

255mm [10.04"] Arm Length

Series	Arm Style	Model
120 Offse	▲ 1547	B8JG-1547-1
70 Offse	▲ 1535	B8JG-1535-1
25 Offse	▲ 1523	B8JG-1523-1
0 Offse	▲ 1511	B8JG-1511-1

285mm [11.22"] Arm Length

Series	Arm Style	Model
120 Offse	▲ 1548	B8JG-1548-1
70 Offse	▲ 1536	B8JG-1536-1
25 Offse	▲ 1524	B8JG-1524-1
0 Offse	▲ 1512	B8JG-1512-1

▲ Common in North America

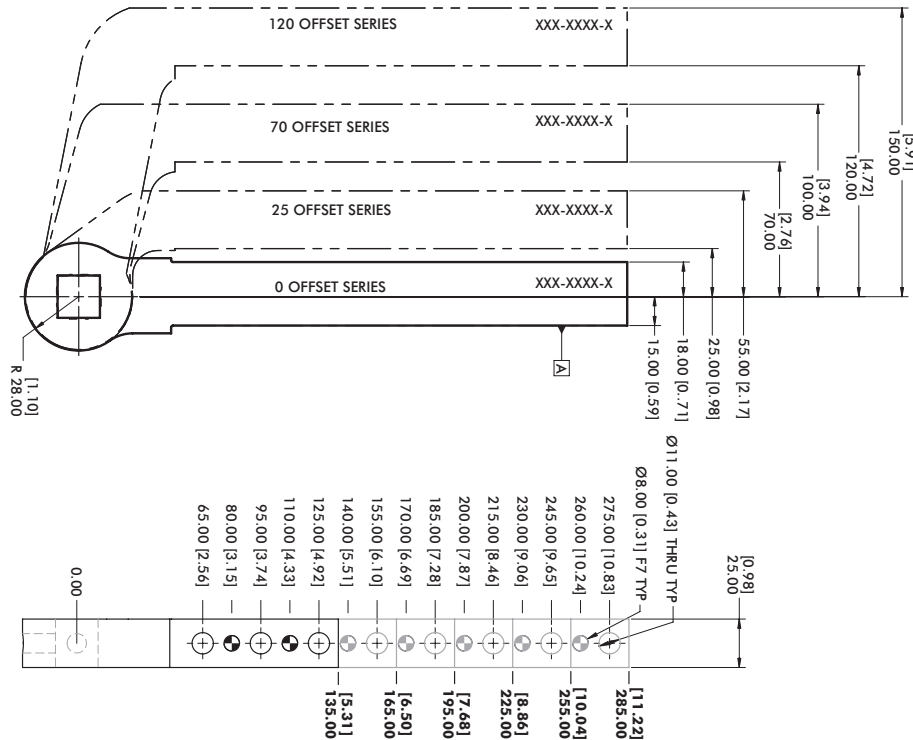
Maximum Opening Angle (shown in locked position)

Arm Styles	135°	135°	100°	100°	N/A	N/A
1510-1512/1507-1509	135°	135°	100°	100°	N/A	N/A
1522-1524/1519-1521	135°	N/A	50°	130°	N/A	40°
1534-1536/1531-1533	115°	N/A	25°	135°	N/A	75°
1546-1548/1543-1545	110°	N/A	20°	135°	N/A	85°

LATERAL (SIDE) ARMS, NAAMS-STYLE

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

For Size 63mm with D0 Clamp Arm Shaft Option



135mm [5.31"] Arm Length			165mm [6.50"] Arm Length			195mm [7.68"] Arm Length		
Series	Arm Style	Model	Series	Arm Style	Model	Series	Arm Style	Model
120 Offse	▲ • 1043	B8JG-1043-1	120 Offse	▲ ⓘ 1044	B8JG-1044-1	120 Offse	▲ ⓘ 1045	B8JG-1045-1
70 Offse	▲ • 1031	B8JG-1031-1	70 Offse	▲ • 1032	B8JG-1032-1	70 Offse	▲ • 1033	B8JG-1033-1
25 Offse	▲ • 1019	B8JG-1019-1	25 Offse	▲ • 1020	B8JG-1020-1	25 Offse	▲ ⓘ 1021	B8JG-1021-1
0 Offse	▲ • 1007	B8JG-1007-1	0 Offse	▲ • 1008	B8JG-1008-1	0 Offse	▲ • 1009	B8JG-1009-1

225mm [8.86"] Arm Length			255mm [10.04"] Arm Length			285mm [11.22"] Arm Length		
Series	Arm Style	Model	Series	Arm Style	Model	Series	Arm Style	Model
120 Offse	▲ ⓘ 1046	B8JG-1046-1	120 Offse	▲ ⓘ 1047	B8JG-1047-1	120 Offse	▲ ⓘ 1048	B8JG-1048-1
70 Offse	▲ • 1034	B8JG-1034-1	70 Offse	▲ • 1035	B8JG-1035-1	70 Offse	▲ ⓘ 1036	B8JG-1036-1
25 Offse	▲ ⓘ 1022	B8JG-1022-1	25 Offse	▲ ⓘ 1023	B8JG-1023-1	25 Offse	▲ ⓘ 1024	B8JG-1024-1
0 Offse	▲ ⓘ 1010	B8JG-1010-1	0 Offse	▲ ⓘ 1011	B8JG-1011-1	0 Offse	▲ ⓘ 1012	B8JG-1012-1

▲ Common in North America

(•) STANDARD ARM OFFERING

ⓘ NON-STANDARD ARM OFFERING (extended leadtimes apply)

Maximum Opening Angle (shown in locked position)

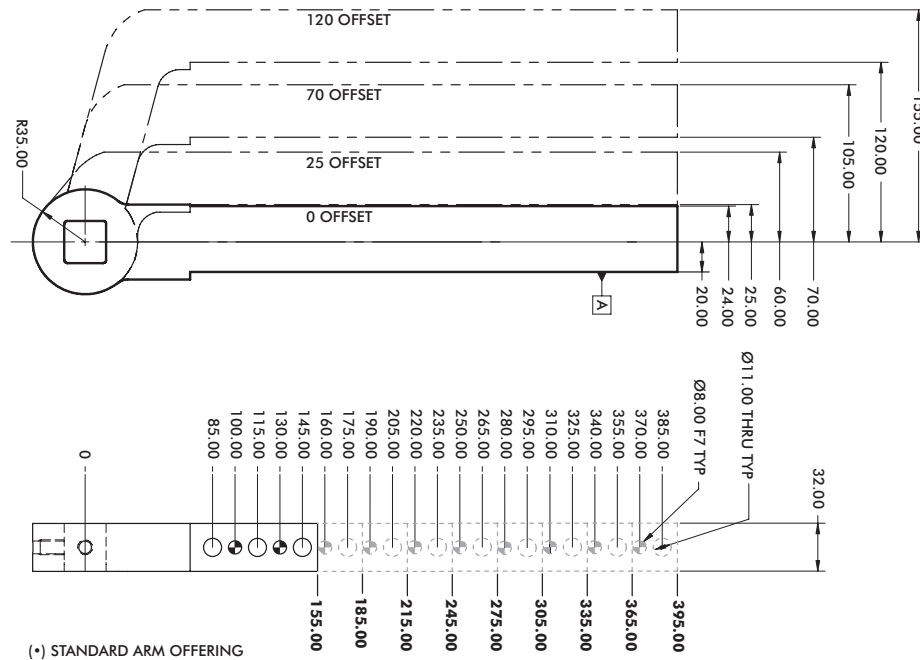
Arm Styles	1010-1012/1007-1009	1022-1024/1019-1021	1034-1036/1031-1033	1046-1048/1043-1045
Maximum Opening Angle	135°	135°	115°	110°

1010-1012/1007-1009	135°	135°	100°	100°	N/A	N/A
1022-1024/1019-1021	135°	N/A	50°	130°	N/A	40°
1034-1036/1031-1033	115°	N/A	25°	135°	N/A	75°
1046-1048/1043-1045	110°	N/A	20°	135°	N/A	85°

LATERAL (SIDE) ARMS, NAAMS-STYLE

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

For Size 80mm



155mm [4.53"] Arm Length

Series	Arm Style	Model
120 Offse	▲ ⓘ 1170	B8JG-1170-1
70 Offse	▲ • 1150	B8JG-1150-1
25 Offse	▲ ⓘ 1130	B8JG-1130-1
0 Offse	▲ ⓘ 1110	B8JG-1110-1

185mm [7.28"] Arm Length

Series	Arm Style	Model
120 Offse	▲ ⓘ 1171	B8JG-1171-1
70 Offse	▲ ⓘ 1151	B8JG-1151-1
25 Offse	▲ ⓘ 1131	B8JG-1131-1
0 Offse	▲ ⓘ 1111	B8JG-1111-1

215mm [8.46"] Arm Length

Series	Arm Style	Model
120 Offse	▲ ⓘ 1172	B8JG-1172-1
70 Offse	▲ ⓘ 1152	B8JG-1152-1
25 Offse	▲ ⓘ 1132	B8JG-1132-1
0 Offse	▲ • 1112	B8JG-1112-1

245mm [9.65"] Arm Length

Series	Arm Style	Model
120 Offse	▲ ⓘ 1173	B8JG-1173-1
70 Offse	▲ ⓘ 1153	B8JG-1153-1
25 Offse	▲ ⓘ 1133	B8JG-1133-1
0 Offse	▲ ⓘ 1113	B8JG-1113-1

275mm [10.83"] Arm Length

Series	Arm Style	Model
120 Offse	▲ ⓘ 1174	B8JG-1174-1
70 Offse	▲ ⓘ 1154	B8JG-1154-1
25 Offse	▲ • 1134	B8JG-1134-1
0 Offse	▲ ⓘ 1114	B8JG-1114-1

305mm [12.00"] Arm Length

Series	Arm Style	Model
120 Offse	▲ ⓘ 1175	B8JG-1175-1
70 Offse	▲ • 1155	B8JG-1155-1
25 Offse	▲ ⓘ 1135	B8JG-1135-1
0 Offse	▲ ⓘ 1115	B8JG-1115-1

335mm [13.19"] Arm Length

Series	Arm Style	Model
120 Offse	▲ ⓘ 1176	B8JG-1176-1
70 Offse	▲ ⓘ 1156	B8JG-1156-1
25 Offse	▲ ⓘ 1136	B8JG-1136-1
0 Offse	▲ ⓘ 1116	B8JG-1116-1

365mm [14.37"] Arm Length

Series	Arm Style	Model
120 Offse	▲ ⓘ 1177	B8JG-1177-1
70 Offse	▲ ⓘ 1157	B8JG-1157-1
25 Offse	▲ ⓘ 1137	B8JG-1137-1
0 Offse	▲ ⓘ 1117	B8JG-1117-1

395mm [15.55"] Arm Length

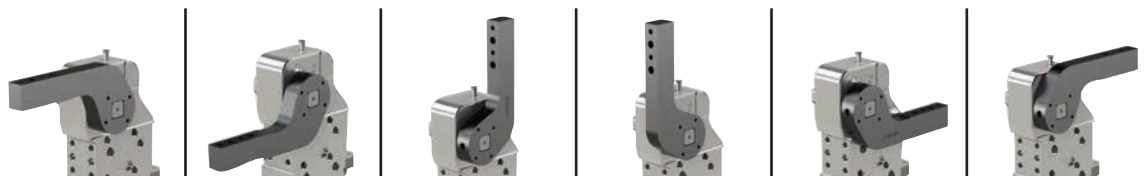
Series	Arm Style	Model
120 Offse	▲ ⓘ 1178	B8JG-1178-1
70 Offse	▲ • 1158	B8JG-1158-1
25 Offse	▲ ⓘ 1138	B8JG-1138-1
0 Offse	▲ • 1118	B8JG-1118-1

▲ Common in North America

(•) STANDARD ARM OFFERING

ⓘ NON-STANDARD ARM OFFERING (extended leadtimes apply)

Maximum Opening Angle (shown in locked position)



Arm Styles						
1110 - 1118	135°	135°	100°	100°	N/A	N/A
1130 - 1138	135°	N/A	60°	120°	N/A	30°
1150 - 1158	125°	N/A	35°	135°	N/A	55°
1170 - 1178	115°	N/A	25°	135°	N/A	80°