

Series 84A2-1 Product Overview

Features:

- small size, low weight
- fast opening and closing action
- high clamping force
- long life cycle
- roller and cam principle, self-locking at end stop position
- add-on component and end position sensing available
- Cylinder diameter 25
- Air consumption per double stroke: 0,3 dm³
- Air connectors M5

Application:

Gripping, holding, placing, removing and transporting of metal sheets and other parts, mainly in jigs, transfer presses and handling systems.

Key areas of application:

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

Picture	Model	Clamping Force at 5 bar N [lbs]	Opening Angle	Weight Kg [lbs]	Opening/closure time min sec.
	84A2-110000000	580 [130]	72° upper	0,6 [1.32]	0,2
	84A2X110000000		30° upper		
	84A2Y110000000		45° upper		
	84A2-120000000	360 [81]	72° upper	0,65 [1.43]	0,2
	84A2X120000000		30° upper		
	84A2Y120000000		45° upper		
	84A2-130000000	270 [61]	72° upper + lower	0,6 [1.32]	0,2
	84A2X130000000		30° upper + lower		
	84A2Y130000000		45° upper + lower		
	84A2R130000000	270 [61]	72° upper, 15° lower	0,6 [1.32]	0,2
	84A2T130000000		45° upper, 15° lower		
	84A2-140000000	580 [130]	72° upper	0,5 [0.11]	0,2
	84A2X140000000		30° upper		
	84A2Y140000000		45° upper		
	84A2-160000000	580 [130]	72° upper	0,5 [0.11]	0,2
	84A2X160000000		30° upper		
	84A2Y160000000		45° upper		
	84A2-170000000	580 [130]	72° upper	0,6 [1.32]	0,2
	84A2X170000000		30° upper		
	84A2Y170000000		45° upper		
	84A2-180000000	340 [76]	72° upper	0,65 [1.43]	0,2
	84A2X180000000		30° upper		
	84A2Y180000000		45° upper		
	84A2-190000000	400 [90]	45° upper	0,65 [1.43]	0,2
	84A2X190000000		30° upper		

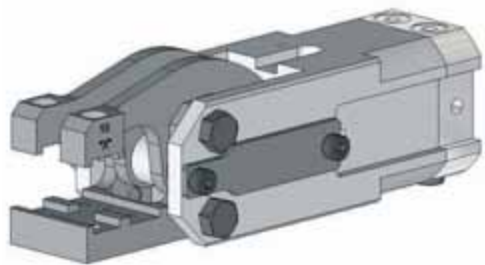
* The values of gripping forces include a safety factor 20%

Major spare parts

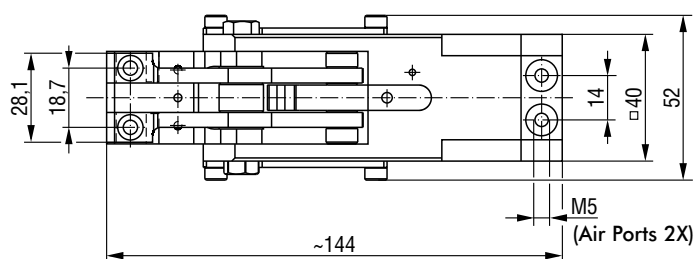
Specification	Order no. for 84A2-1
Cylinder	8PW-059-1
Seal kit	8PW-059-1-00

Accessories 17.11

Series 84A2-1 Product Overview



Model	Opening angle
84A2-110000000	72°
84A2X110000000	30°
84A2Y110000000	45°



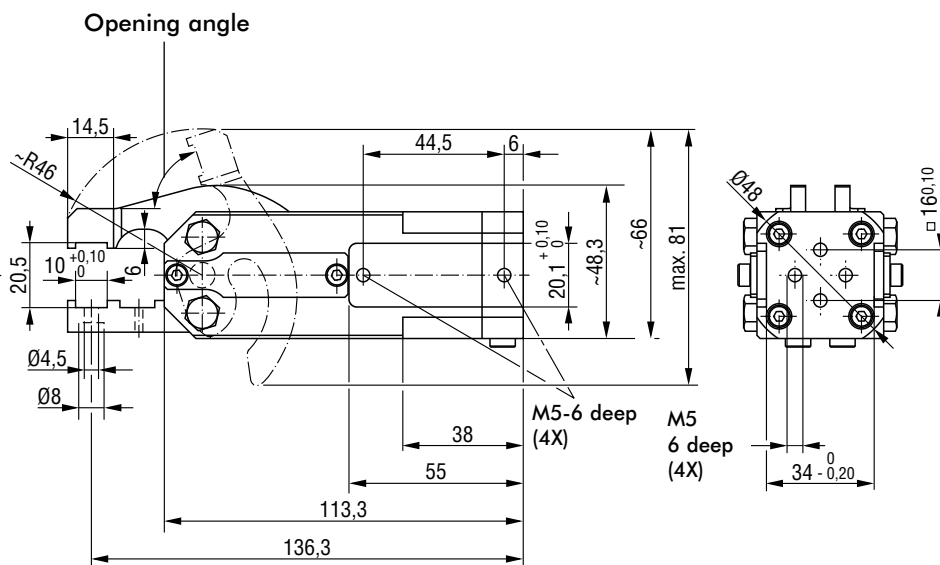
Medium: air, min. 3 bar,
max. 6 bar operation with
oil-free air is permissible.

Attention!

Concept guidelines to be considered

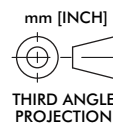
Note!

Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.



Note!

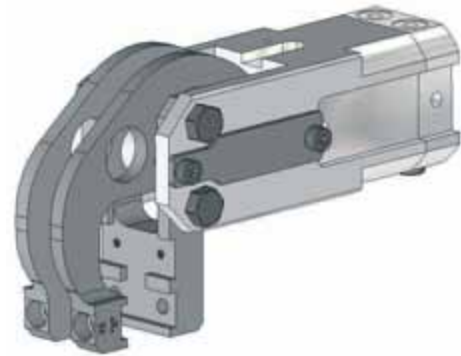
Additional of the gripper teeth height and thickness must be 20,5 mm. It might be necessary to use shim plates or to grind the gripper teeth.



Please order separately accessories such as gripper teeth, sensing and adaptors

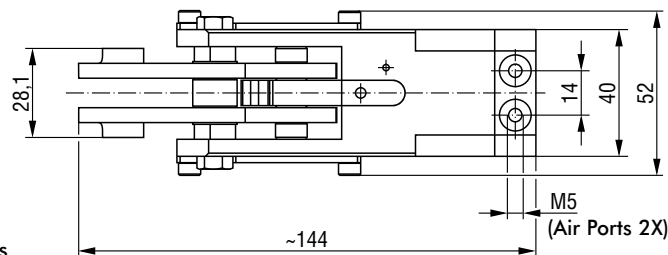
Series 84A2-1 Product Overview

Model	Opening angle
84A2-120000000	72°
84A2X120000000	30°
84A2Y120000000	45°



Note!

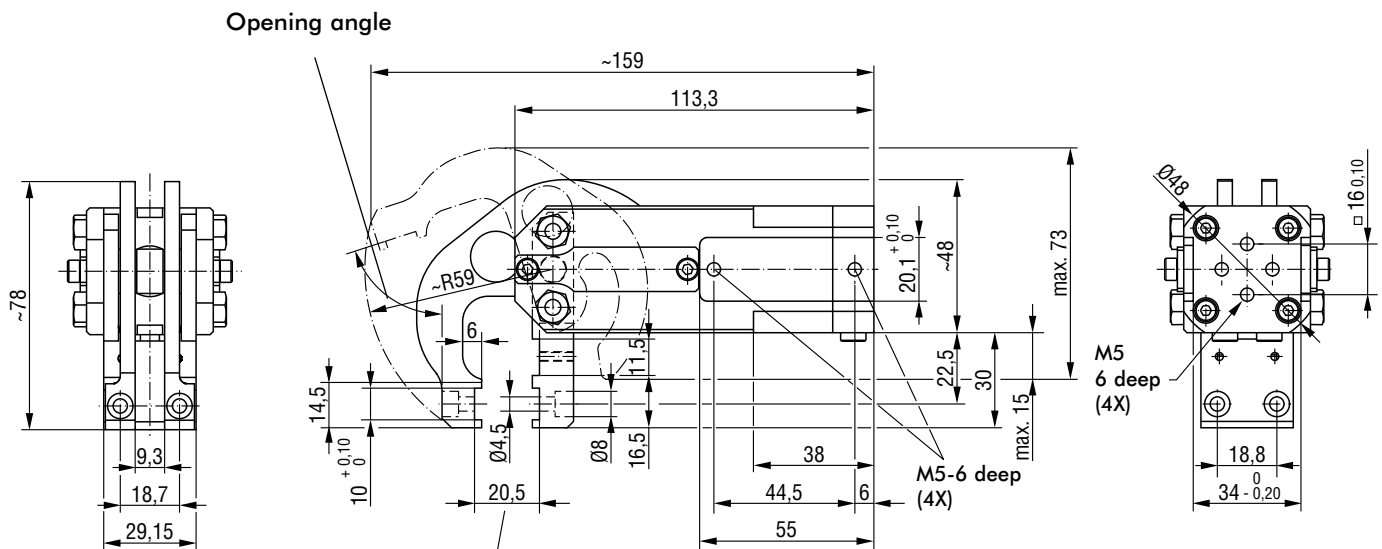
Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.



Medium: air, min. 3 bar, max. 6 bar operation with oil-free air is permissible.

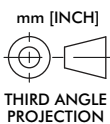
Attention!

Concept guidelines to be considered



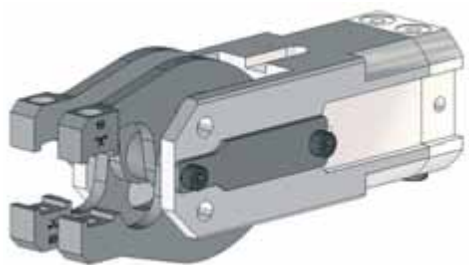
Note!

Addition of the gripper teeth height and thickness must be 20,5 mm. It might be necessary to use shim plates or to grind the gripper teeth.

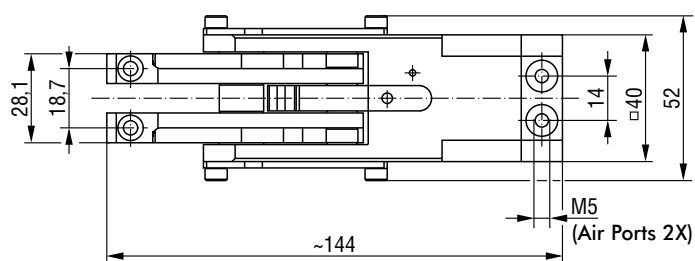


Please order separately accessories such as gripper teeth, sensing and adaptors

Series 84A2-1 Product Overview



Model	Opening angle
84A2-130000000	72°
84A2X130000000	30°
84A2Y130000000	45°



Medium: air, min. 3 bar,
max. 6 bar operation with
oil-free air is permissible.

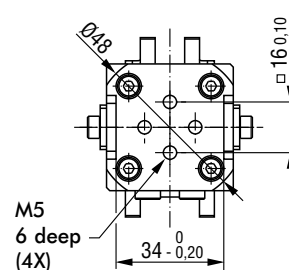
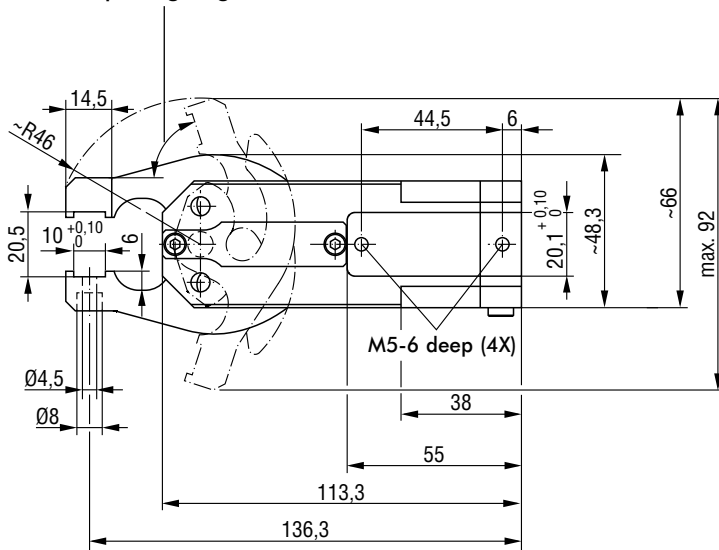
Attention!

Concept guidelines to be considered

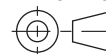
Note!

Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

Opening angle



mm [INCH]



THIRD ANGLE
PROJECTION

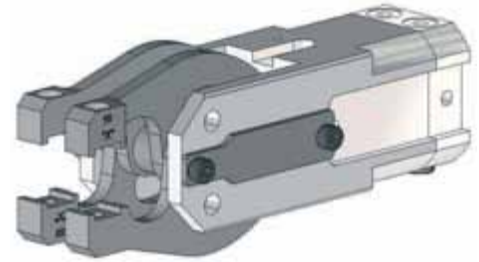
Note!

NOTE:
Addition of the gripper teeth height and thickness must be 20,5 mm. It might be necessary to use shim plates or to grind the gripper teeth.

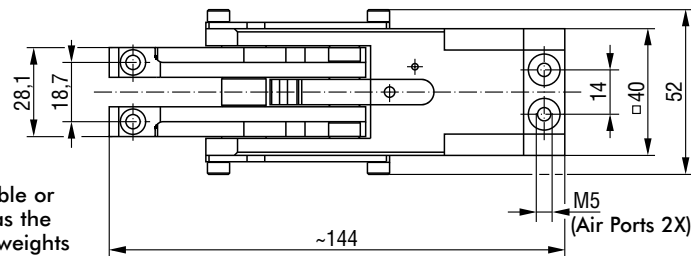
Please order separately accessories such as gripper teeth, sensing and adaptors

Series 84A2-1 Product Overview

Model	Upper Opening angle	Lower Opening angle
84A2R130000000	72°	15°
84A2T130000000	45°	15°

**Note!**

Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

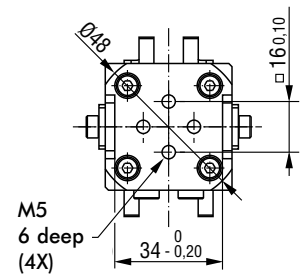
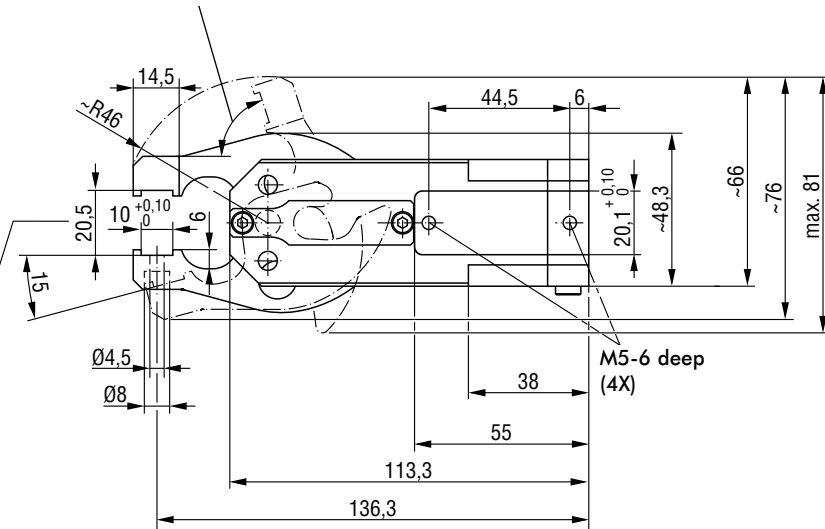


Medium: air, min. 3 bar, max. 6 bar operation with oil-free air is permissible.

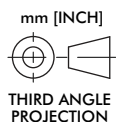
Attention!

Concept guidelines to be considered

Opening angle

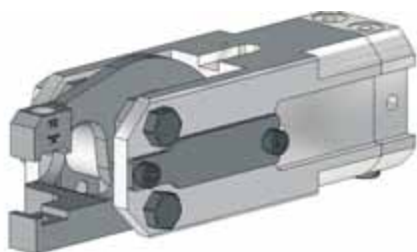
**Note!**

Addition of the gripper teeth height and thickness must be 20,5 mm. It might be necessary to use shim plates or to grind the gripper teeth.

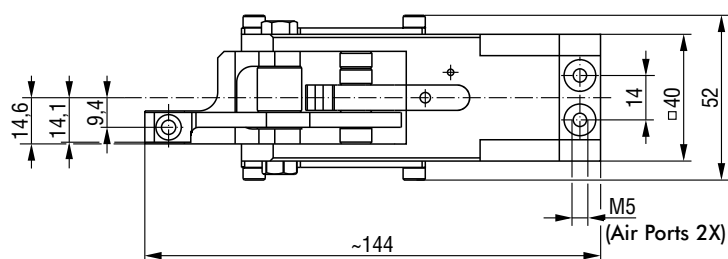


Please order separately accessories such as gripper teeth, sensing and adaptors

Series 84A2-1 Product Overview



Model	Opening angle
84A2-140000000	72°
84A2X140000000	30°
84A2Y140000000	45°



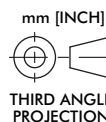
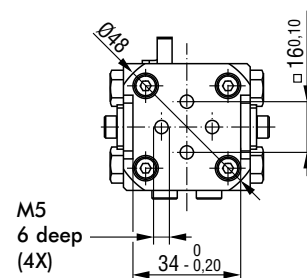
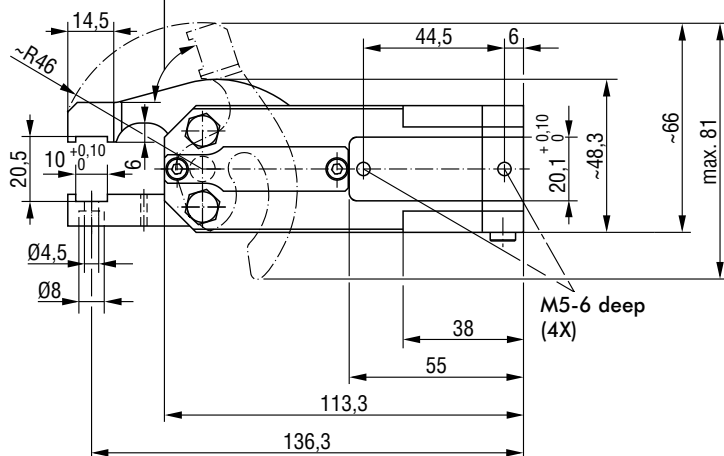
Medium: air, min. 3 bar,
max. 6 bar operation with
oil-free air is permissible.

Attention!
Concept guidelines to be
considered

Note!

Any extension of the movable or
fixed gripper jaws as well as the
additional attachment of weights
will repeal the guarantee.

Opening angle



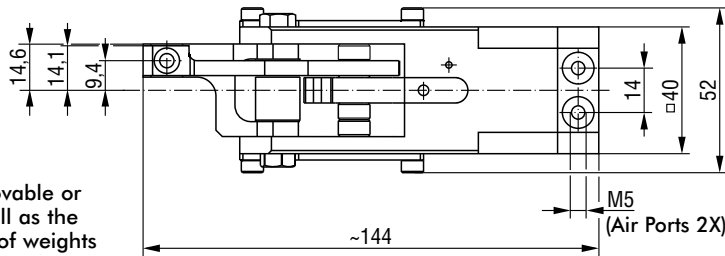
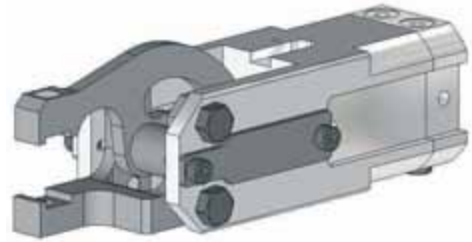
Note!

Addition of the gripper teeth height and
thickness must be 20,5 mm. It might be
necessary to use shim plates or to grind
the gripper teeth.

Please order separately accessories such as gripper teeth, sensing and adaptors

Series 84A2-1 Product Overview

Model	Opening angle
84A2-160000000	72°
84A2X160000000	30°
84A2Y160000000	45°



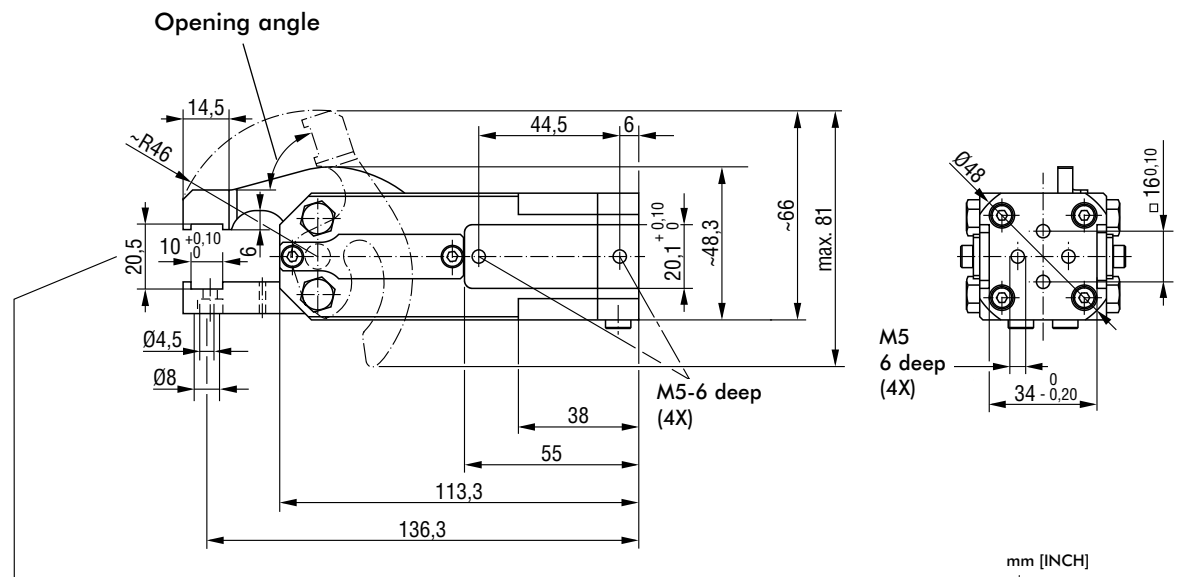
Medium: air, min. 3 bar,
max. 6 bar operation with
oil-free air is permissible.

Attention!

Concept guidelines to be considered

Note!

Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.



Note!

Addition of the gripper teeth height and thickness must be 20,5 mm. It might be necessary to use shim plates or to grind the gripper teeth.

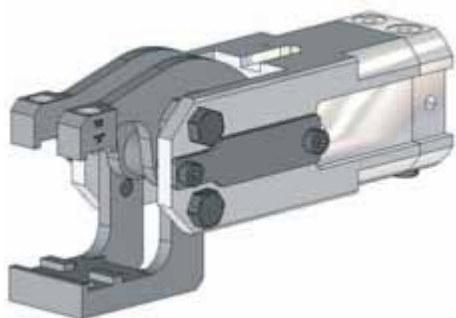
mm [INCH]



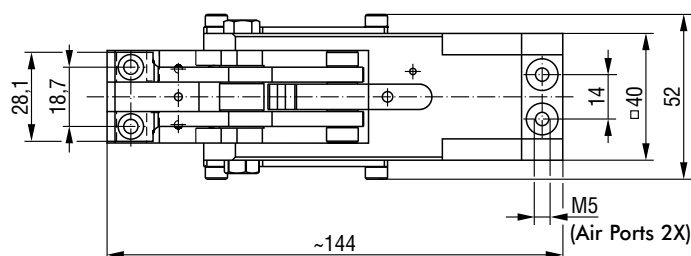
THIRD ANGLE PROJECTION

Please order separately accessories such as gripper teeth, sensing and adaptors

Series 84A2-1 Product Overview



Model	Opening angle
84A2-170000000	72°
84A2X170000000	30°
84A2Y170000000	45°

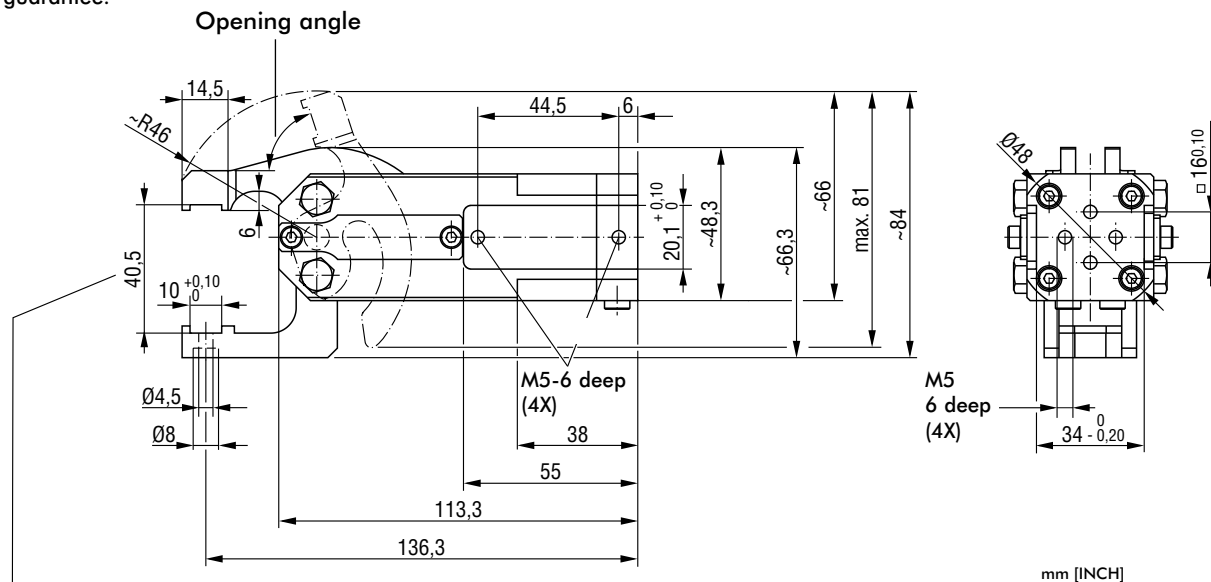


Medium: air, min. 3 bar,
max. 6 bar operation with
oil-free air is permissible.

Attention!
Concept guidelines to be
considered

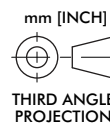
Note!

Any extension of the movable or
fixed gripper jaws as well as the
additional attachment of weights
will repeal the guarantee.



Note!

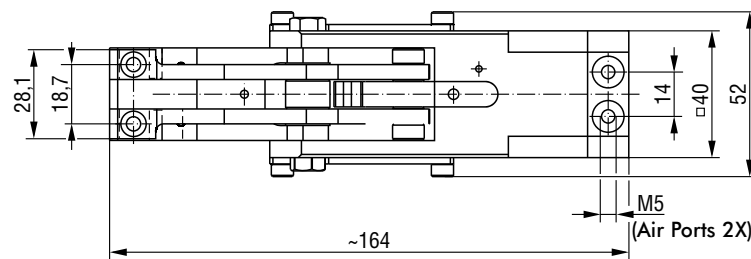
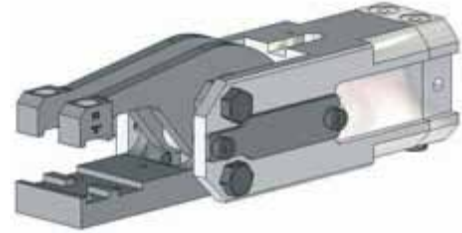
Addition of the gripper teeth height and
thickness must be 20,5 mm. It might be
necessary to use shim plates or to grind
the gripper teeth.



Please order separately accessories such as gripper teeth, sensing and adaptors

Series 84A2-1 Product Overview

Model	Opening angle
84A2-180000000	72°
84A2X180000000	30°
84A2Y180000000	45°

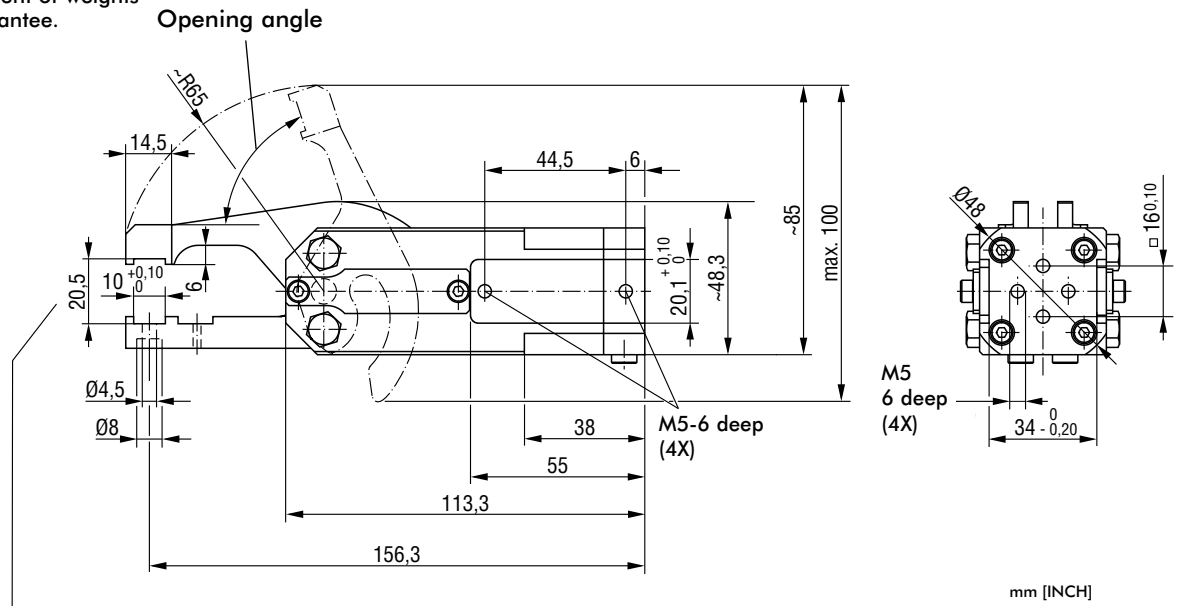


Medium: air, min. 3 bar,
max. 6 bar operation with
oil-free air is permissible.

Attention!
Concept guidelines to be
considered

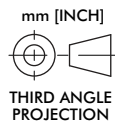
Note!

Any extension of the movable or
fixed gripper jaws as well as the
additional attachment of weights
will repeal the guarantee.



Note!

Addition of the gripper teeth height and
thickness must be 20,5 mm. It might be
necessary to use shim plates or to grind
the gripper teeth.

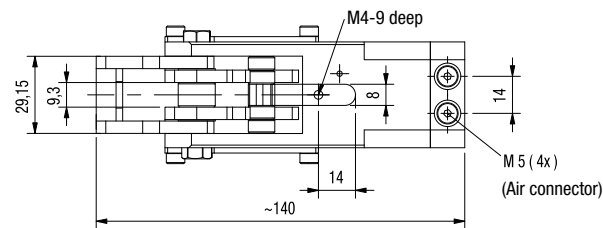


Please order separately accessories such as gripper teeth, sensing and adaptors

Series 84A2-1 Product Overview

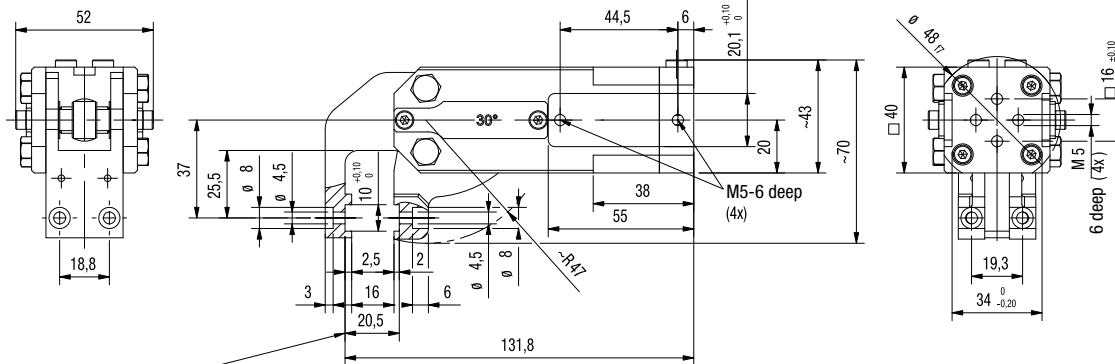


Model	Opening angle
84A2-190000000	45°
84A2X190000000	30°



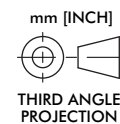
Medium: air, min. 3 bar, max. 6 bar
operation with oil-free air is permissible.

Attention!
Concept guidelines to be considered



Note!
Addition of the gripper teeth height and thickness must be 20,5 mm. It might be necessary to use shim plates or to grind the gripper teeth.

Note!
Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.



Please order separately accessories such as gripper teeth, sensing and adaptors

Series 84A2-1/84A2-V Accessories Overview



Gripper teeth: steel hardened



8JZ-027-1

Gripper teeth: steel soft



8JZ-028-1

Gripper points: steel hardened



8JZ-029-1

Crown-teeth: steel hardened



8JZ-037-1
8JZ-038-1
8JZ-039-1
8JZ-040-1 For transfer free of deformation and swarf

Gripper jaw, top: Gripper teeth, Gripper points, Crown teeth – Dimensions see page 17.52

Gripper teeth: steel hardened



8JZ-027-1

Gripper teeth: steel soft



8JZ-028-1

Gripper points: steel hardened



8JZ-029-1

Crown-teeth: steel hardened



8JZ-036-2
For transfer free of deformation and swarf

Gripper jaw, bottom: Gripper teeth, Gripper points, Crown teeth – Dimensions see page 17.52

8MA-165-1
Ø 20 mm



8MA-166-1
Ø 25 mm



8MA-147-1



82ZB-025-2



8MA-168-1
Ø 1"



Adapters / Limit stops – Dimensions see page 17.55

8EA-075-2
switching distance 3 mm



8EA-087-1
workplace control



Shims for gripper teeth
order no.: **8SB-039-1**
(to be ordered separately)

Dimensions:
10 x 10 x 0,1 mm



Sensing systems – Dimensions see page 17.58

Accessories

Opening angle limiter

Specification	Order no. for 84A2	Comment
for 45°	8MF-052-1	For change of opening angle (2parts necessary)
for 30°	8MF-051-1	

Series 84A2-V Product Overview

Features:

- small size, low weight
- fast opening and closing action
- high clamping force
- long life cycle
- roller and cam principle, self-locking at end stop position
- add-on component and end position sensing available
- Cylinder diameter 25
- Air consumption per double stroke: 0,3 dm³
- Air connectors G1/8

Application:

Gripping, holding, placing, removing and transporting of metal sheets and other parts, mainly in jigs, transfer presses and handling systems.

Key areas of application:

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

Picture	Model	Clamping Force at 5 bar N [lbs]	Opening Angle	Weight Kg [lbs]	Opening/closure time min sec.
	84A2-V10000000	580 [120]	72° upper	0,6 [1.32]	0,2
	84A2XV10000000		30° upper		
	84A2YV10000000		45° upper		
	84A2-V20000000	360 [81]	72° upper	0,65 [1.43]	0,2
	84A2XV20000000		30° upper		
	84A2YV20000000		45° upper		
	84A2-V30000000	270 [61]	72° upper + lower	0,6 [1.32]	0,2
	84A2XV30000000		30° upper + lower		
	84A2YV30000000		45° upper + lower		
	84A2RV30000000	270 [61]	72° upper, 15° lower	0,6 [1.32]	0,2
	84A2TV30000000		45° upper, 15° lower		
	84A2-V40000000	580 [130]	72° upper	0,5 [0.11]	0,2
	84A2XV40000000		30° upper		
	84A2YV40000000		45° upper		
	84A2-V60000000	580 [130]	72° upper	0,5 [0.11]	0,2
	84A2XV60000000		30° upper		
	84A2YV60000000		45° upper		
	84A2-V70000000	580 [130]	72° upper	0,6 [1.32]	0,2
	84A2XV70000000		30° upper		
	84A2YV70000000		45° upper		
	84A2-V80000000	340 [76]	72° upper	0,65 [1.43]	0,2
	84A2XV80000000		30° upper		
	84A2YV80000000		45° upper		
	84A2-V90000000	400 [90]	45° upper	0,65 [1.43]	0,2
	84A2XV90000000		30° upper		

* The values of gripping forces include a safety factor 20%

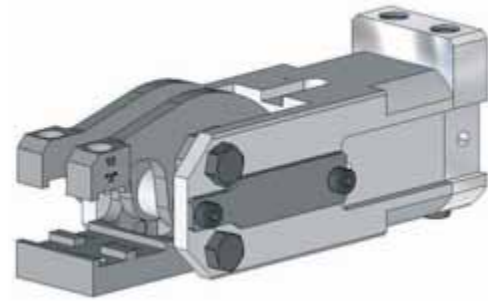
Major spare parts

Specification	Order no. for 84A2-1
Cylinder	8PW-070-1
Seal kit	8PW-059-1-00

Accessories see page 17.11

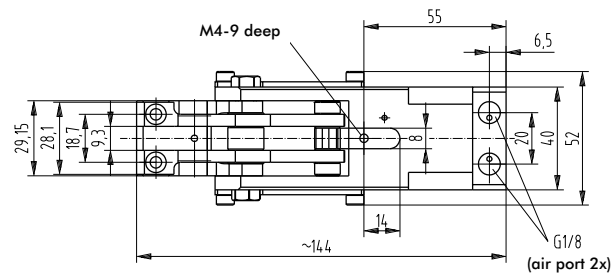
Series 84A2-V Product Overview

Model	Opening angle
84A2-V10000000	72°
84A2XV10000000	30°
84A2YV10000000	45°



Note!

Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.



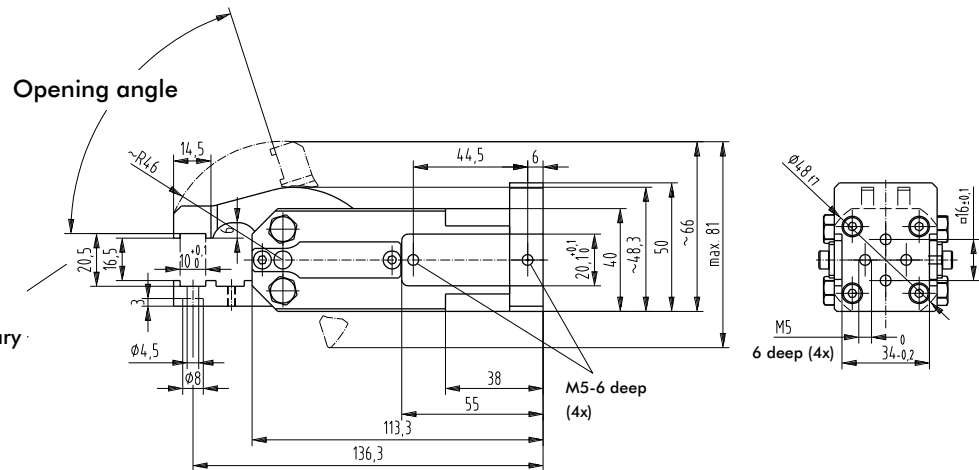
Medium: air, min. 3 bar, max. 6 bar operation with oil-free air is permissible.

Attention!

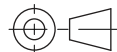
Concept guidelines to be considered

Note!

Addition of the gripper teeth height and thickness must be 20,5 mm. It might be necessary to use shim plates or to grind the gripper teeth.



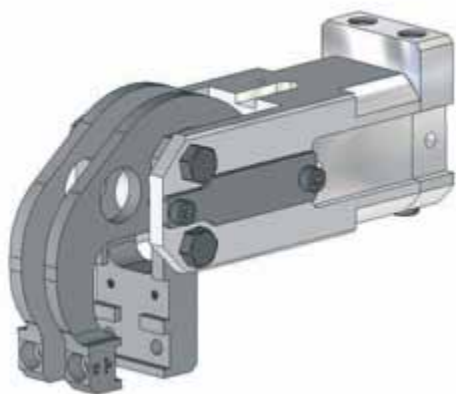
mm [INCH]



THIRD ANGLE PROJECTION

Please order separately accessories such as gripper teeth, sensing and adaptors

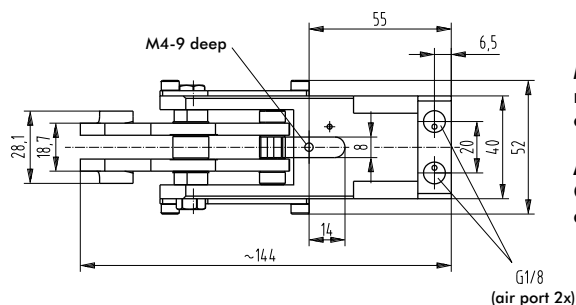
Series 84A2-V Product Overview



Model	Opening angle
84A2-V20000000	72°
84A2XV20000000	30°
84A2YV20000000	45°

Note!

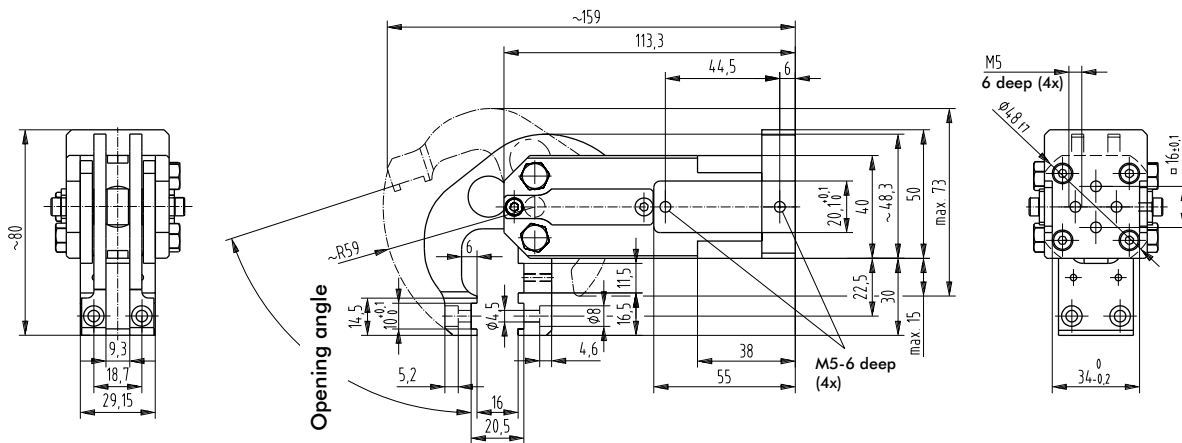
Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.



Medium: air, min. 3 bar, max. 6 bar operation with oil-free air is permissible.

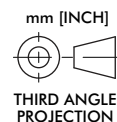
Attention!

Concept guidelines to be considered



Note!

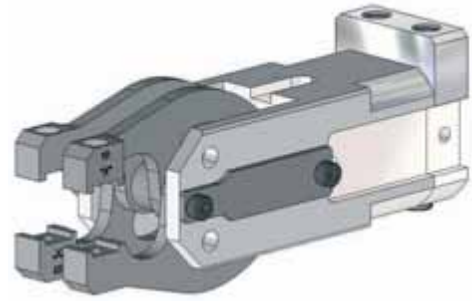
Addition of the gripper teeth height and thickness must be 20,5 mm. It might be necessary to use shim plates or to grind the gripper teeth.



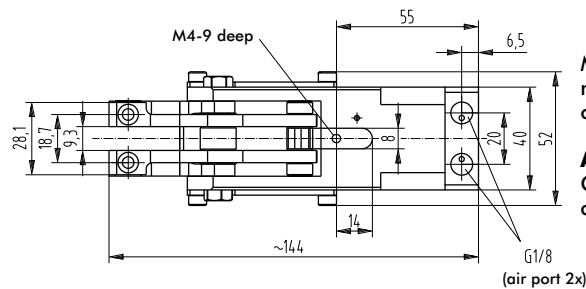
Please order separately accessories such as gripper teeth, sensing and adaptors

Series 84A2-V Product Overview

Model	Opening angle
84A2-V30000000	72°
84A2XV30000000	30°
84A2YV30000000	45°

**Note!**

Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.



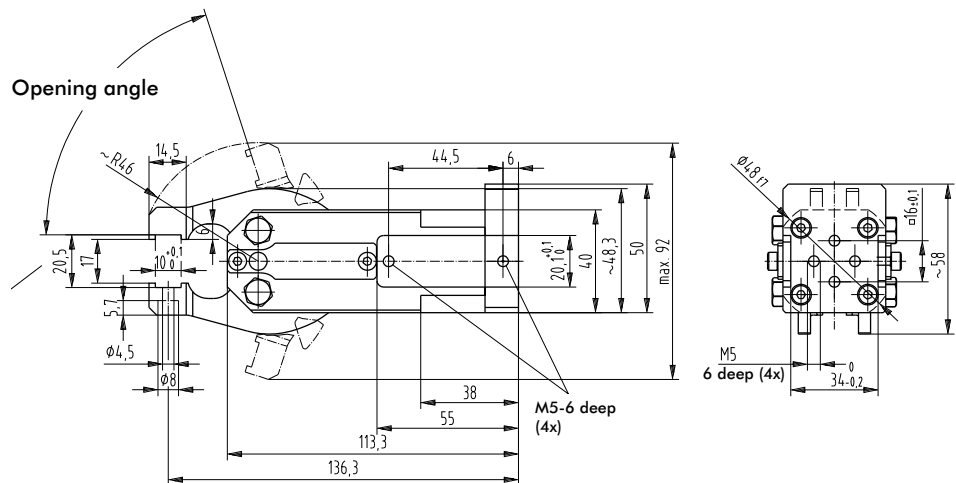
Medium: air, min. 3 bar, max. 6 bar operation with oil-free air is permissible.

Attention!

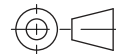
Concept guidelines to be considered

Note!

Addition of the gripper teeth height and thickness must be 20,5 mm. It might be necessary to use shim plates or to grind the gripper teeth.



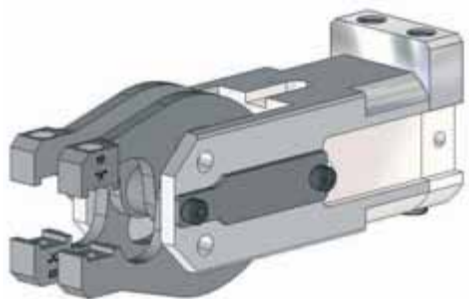
mm [INCH]



THIRD ANGLE PROJECTION

Please order separately accessories such as gripper teeth, sensing and adaptors

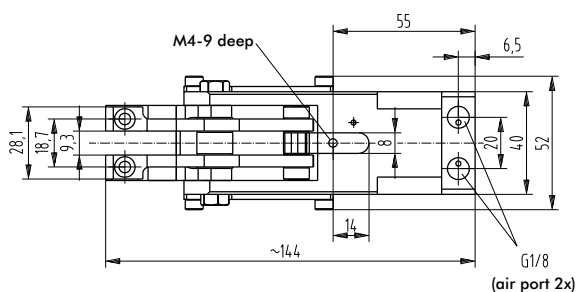
Series 84A2-V Product Overview



Model	Opening angle upper	Opening angle
84A2RV30000000	72°	15°
84A2TV30000000	45°	15°

Note!

Note:
Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.



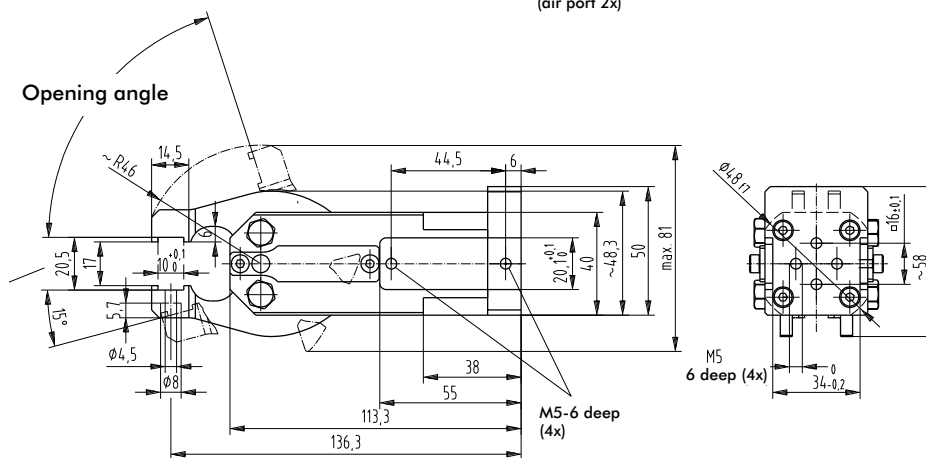
Medium: air, min. 3 bar,
max. 6 bar operation with
oil-free air is permissible.

Attention!

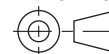
Attention:
Concept guidelines to be considered

Note!

NOTE:
Addition of the gripper teeth height and thickness must be 20,5 mm. It might be necessary to use shim plates or to grind the gripper teeth.



mm [INCH]

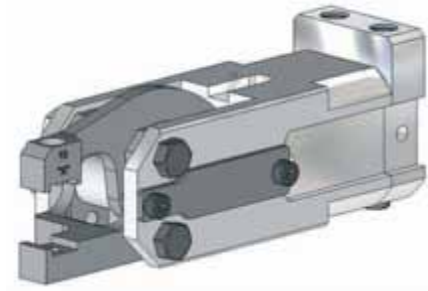


THIRD ANGLE
PROJECTION

Please order separately accessories such as gripper teeth, sensing and adaptors

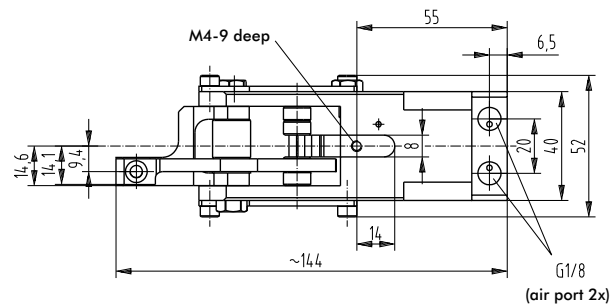
Series 84A2-V Product Overview

Model	Opening angle
84A2-V40000000	72°
84A2XV40000000	30°
84A2YV40000000	45°



Note!

Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.



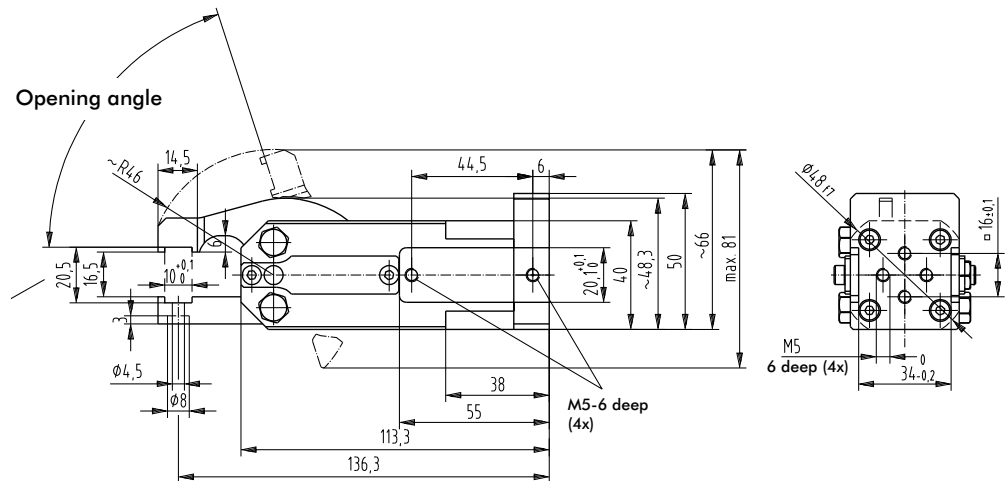
Medium: air, min. 3 bar, max. 6 bar operation with oil-free air is permissible.

Attention!

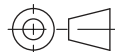
Concept guidelines to be considered

Note!

Addition of the gripper teeth height and thickness must be 20,5 mm. It might be necessary to use shim plates or to grind the gripper teeth.



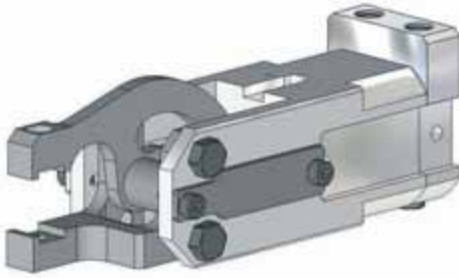
mm [INCH]



THIRD ANGLE PROJECTION

Please order separately accessories such as gripper teeth, sensing and adaptors

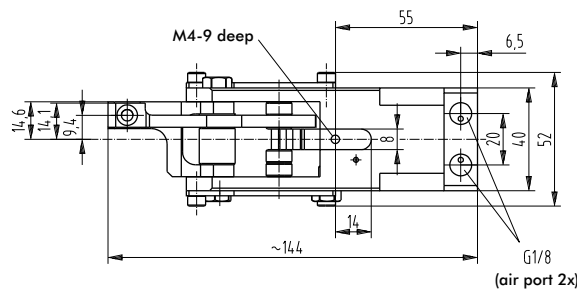
Series 84A2-V Product Overview



Model	Opening angle
84A2-V60000000	72°
84A2XV60000000	30°
84A2YV60000000	45°

Note!

Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.



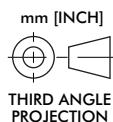
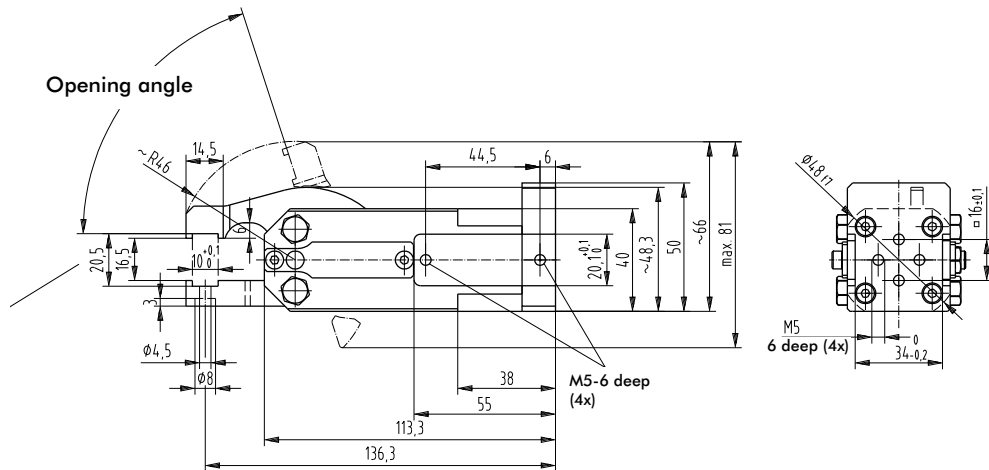
Medium: air, min. 3 bar, max. 6 bar operation with oil-free air is permissible.

Attention!

Concept guidelines to be considered

Note!

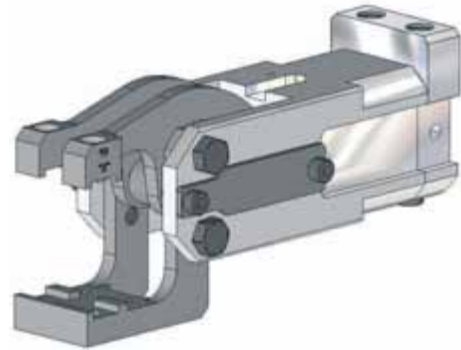
Addition of the gripper teeth height and thickness must be 20,5 mm. It might be necessary to use shim plates or to grind the gripper teeth.



Please order separately accessories such as gripper teeth, sensing and adaptors

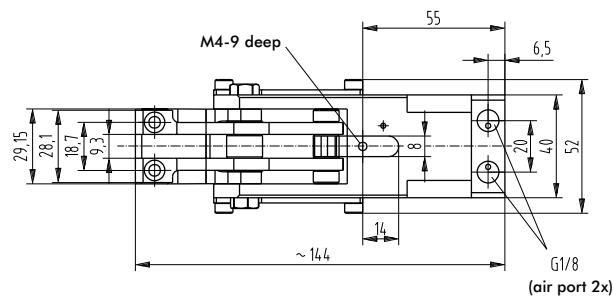
Series 84A2-V Product Overview

Model	Opening angle
84A2-V70000000	72°
84A2XV70000000	30°
84A2YV70000000	45°



Note!

Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.



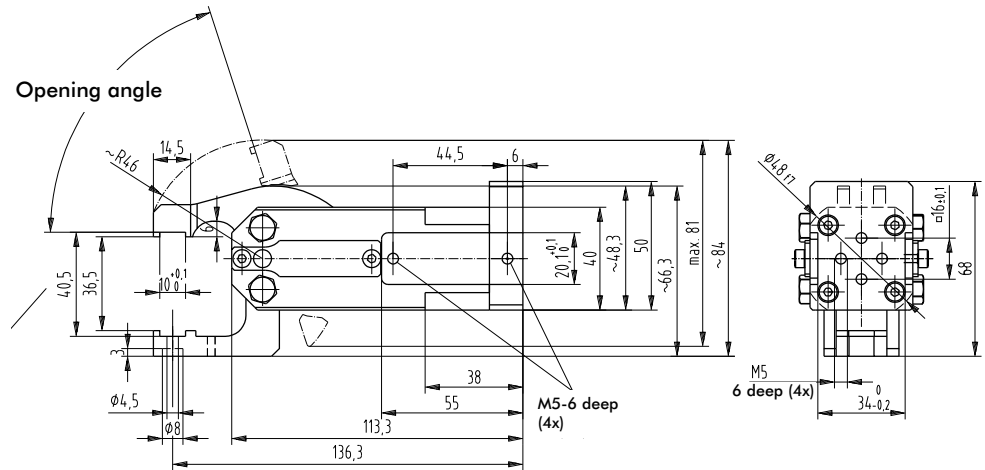
Medium: air, min. 3 bar, max. 6 bar operation with oil-free air is permissible.

Attention!

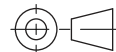
Concept guidelines to be considered

Note!

Addition of the gripper teeth height and thickness must be 20,5 mm. It might be necessary to use shim plates or to grind the gripper teeth.



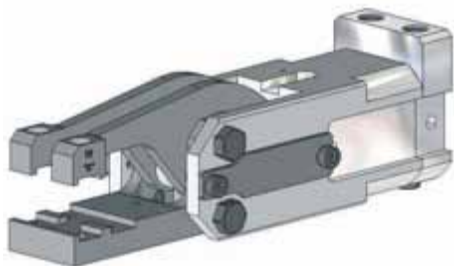
mm [INCH]



THIRD ANGLE PROJECTION

Please order separately accessories such as gripper teeth, sensing and adaptors

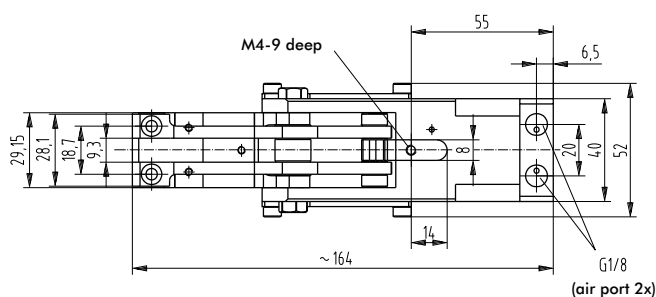
Series 84A2-V Product Overview



Model	Opening angle
84A2-V80000000	72°
84A2XV80000000	30°
84A2YV80000000	45°

Note!

Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.



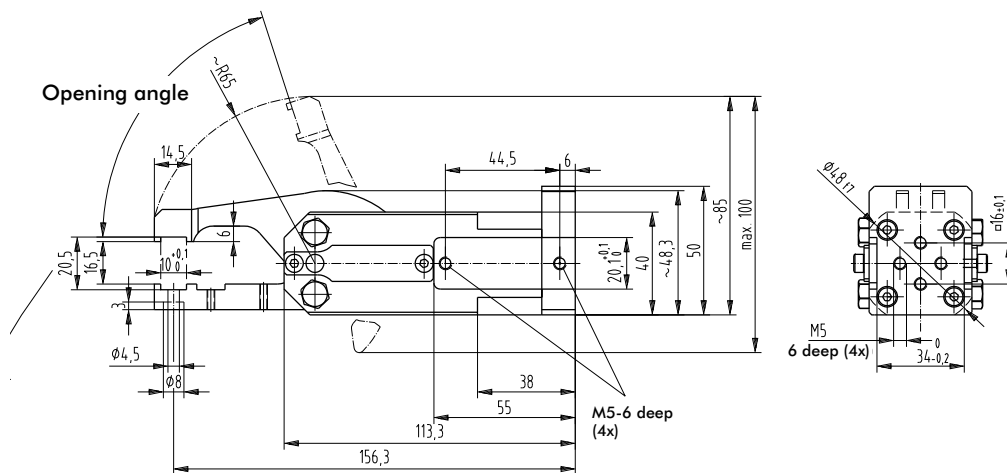
Medium: air, min. 3 bar, max. 6 bar operation with oil-free air is permissible.

Attention!

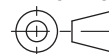
Concept guidelines to be considered

Note!

Addition of the gripper teeth height and thickness must be 20,5 mm. It might be necessary to use shim plates or to grind the gripper teeth.



mm [INCH]



THIRD ANGLE PROJECTION

Please order separately accessories such as gripper teeth, sensing and adaptors

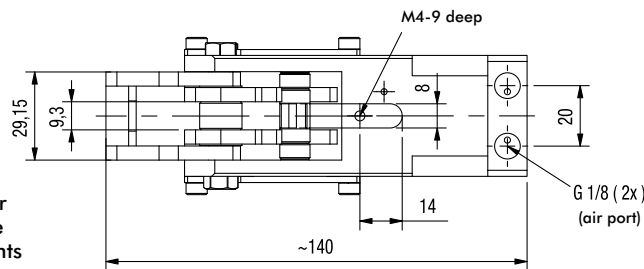
Series 84A2-V Product Overview

Model	Opening angle
84A2-V90000000	45°
84A2XV90000000	30°



Note!

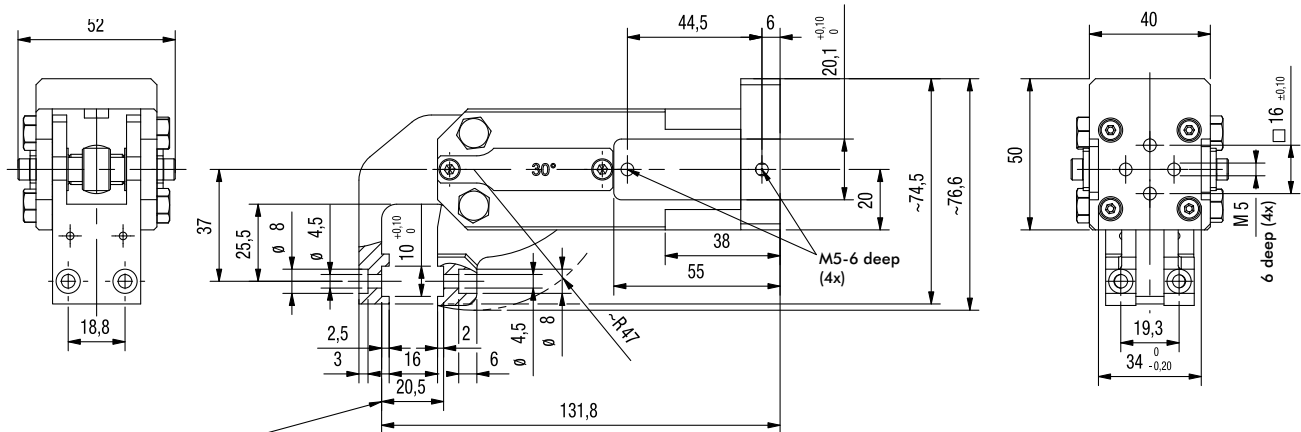
Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.



Medium: air, min. 3 bar, max. 6 bar operation with oil-free air is permissible.

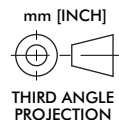
Attention!

Concept guidelines to be considered



Note!

Addition of the gripper teeth height and thickness must be 20,5 mm. It might be necessary to use shim plates or to grind the gripper teeth.



Please order separately accessories such as gripper teeth, sensing and adaptors

Series 84A3-3 Product Overview

Picture	Model	Clamping Force at 5 bar N [lbs]	Opening Angle	Weight Kg [lbs]	Opening/closure time min. sec.
	84A3-310000000	1500 [337]	76°	1,35 [2.86]	0,2
	84A3X310000000		30°		
	84A3Y310000000		45°		
	84A3Z310000000		60°		
	84A3-320000000	950 [213]	76°	1,6 [3.52]	0,2
	84A3X320000000		30°		
	84A3Y320000000		45°		
	84A3Z320000000		60°		
	84A3-330000000	750 [169]	76°	1,35 [2.97]	0,2
	84A3X330000000		30°		
	84A3Y330000000		45°		
	84A3Z330000000		60°		
	84A3-340000000	1500 [337]	76°	1,3 [2.86]	0,2
	84A3X340000000		30°		
	84A3Y340000000		45°		
	84A3Z340000000		60°		
	84A3-350000000	1500 [337]	76°	1,25 [2.75]	0,2
	84A3X350000000		30°		
	84A3Y350000000		45°		
	84A3Z350000000		60°		
	84A3-360000000	570 [128]	76°	1,55 [3.41]	0,3
	84A3X360000000		30°		
	84A3Y360000000		45°		
	84A3Z360000000		60°		
	84A3-370000000	1800 [404]	76°	1,45 [3.17]	0,2
	84A3X370000000		30°		
	84A3Y370000000		45°		
	84A3Z370000000		60°		
	84A3-380000000	1800 [404]	76°	1,4 [3.08]	0,2
	84A3X380000000		30°		
	84A3Y380000000		45°		
	84A3Z380000000		60°		
	84A3R330000000	750 [169]	76° upper, 15° lower	1,35 [2.97]	0,2
	84A3S330000000		30° upper, 15° lower		
	84A3T330000000		45° upper, 15° lower		
	84A3U330000000		60° upper, 15° lower		
	84A3-390000000	1500 [337]	76°	1,3 [2.86]	0,2
	84A3X390000000		30°		
	84A3Y390000000		45°		
	84A3Z390000000		60°		
	84A3-300000000	1500 [337]	76°	1,4 [3.08]	0,2
	84A3X300000000		30°		
	84A3Y300000000		45°		
	84A3Z300000000		60°		

Accessories see page 17.34

Series 84A3-3 Product Overview

Features:

- small size, low weight
- fast opening and closing action
- high clamping force
- long life cycle
- roller and cam principle, self-locking at end stop position
- add-on component and end position sensing available

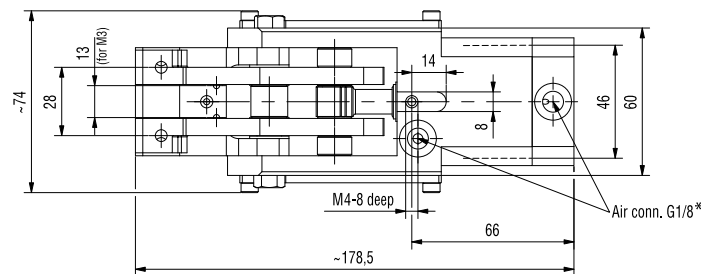
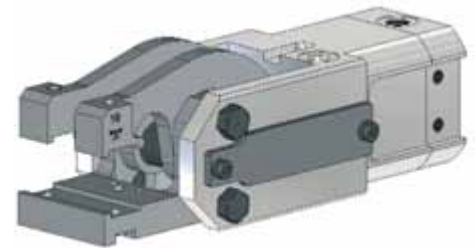
Application:

Gripping, holding, placing, removing and transporting of metal sheets and other parts, mainly in jigs, transfer presses and handling systems.

Key areas of application:

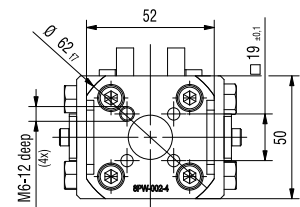
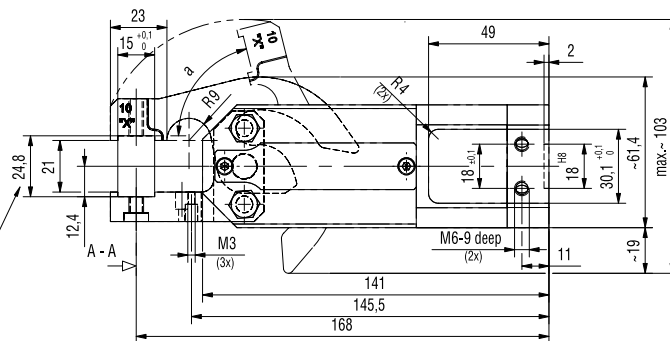
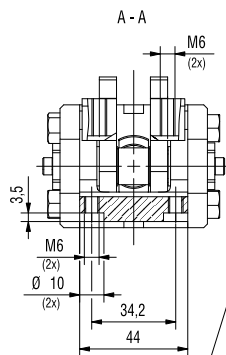
Automotive manufacturing, sheet processing industry, jig and general mechanical engineering.

Model	Opening angle
84A3-310000000	76°
84A3X310000000	30°
84A3Y310000000	45°
84A3Z310000000	60°



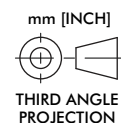
Medium: air, min. 3 bar, max. 6 bar operation with oil-free air is permissible.

Attention!
Concept guidelines to be considered



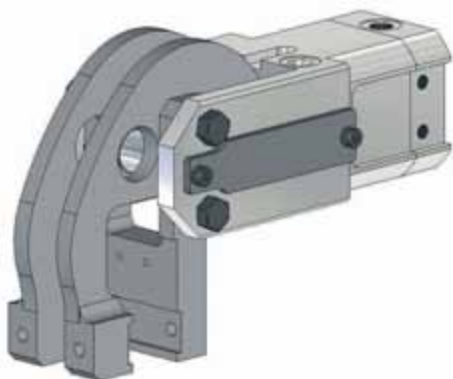
Note!

Addition of the gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind the gripper teeth.

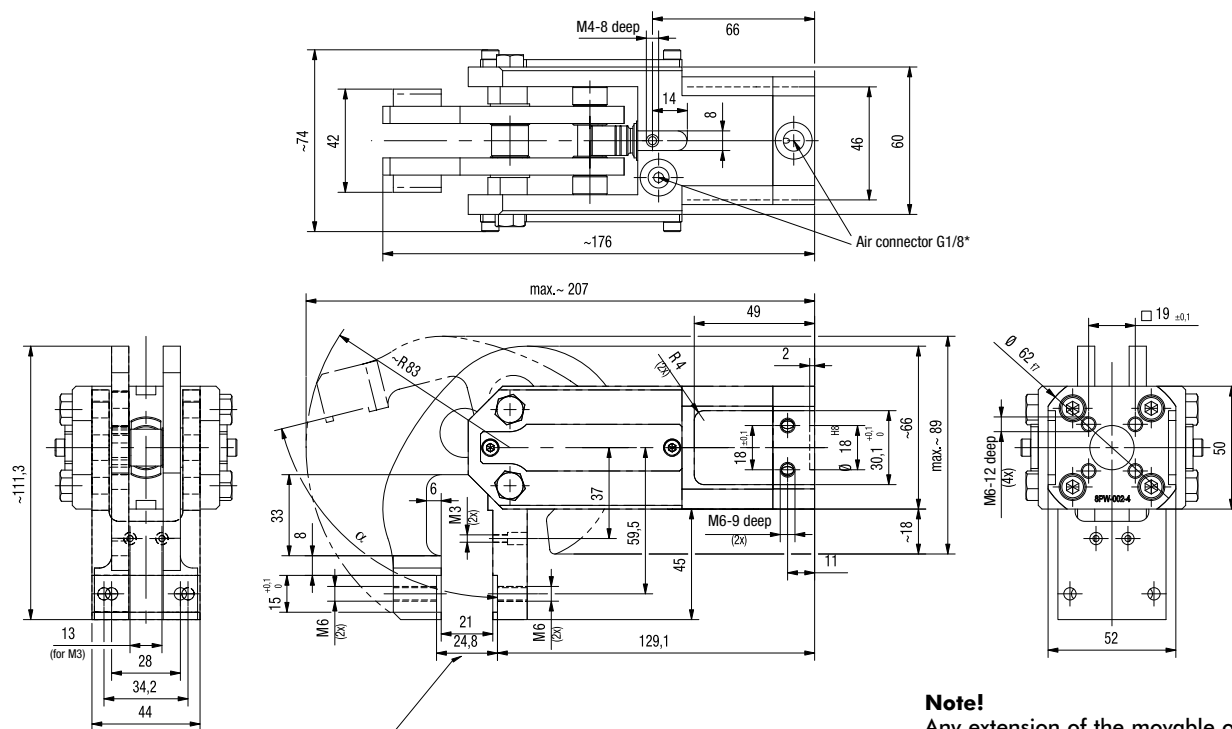


* The values of gripping forces include a safety factor 20%

Series 84A3-3 Product Overview



Model	Opening angle
84A3-320000000	76°
84A3X320000000	30°
84A3Y320000000	45°
84A3Z320000000	60°



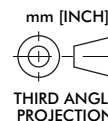
Note!

Notes:
Addition of the gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind the gripper teeth.

Note!

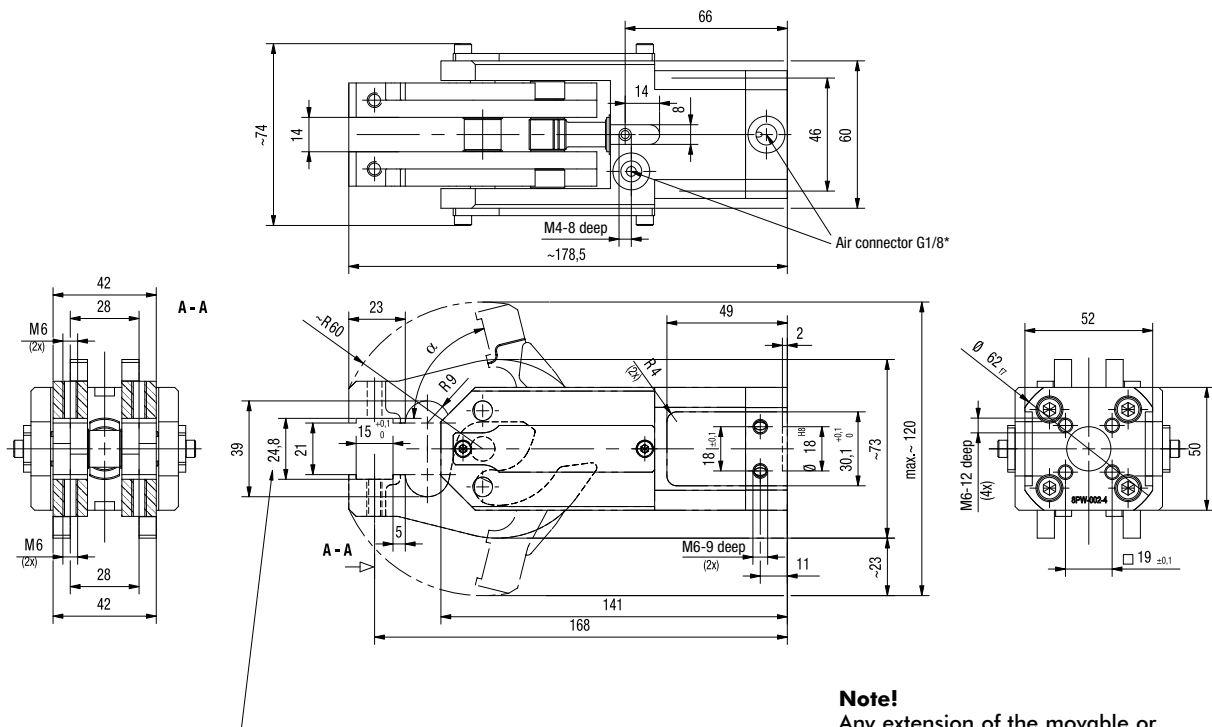
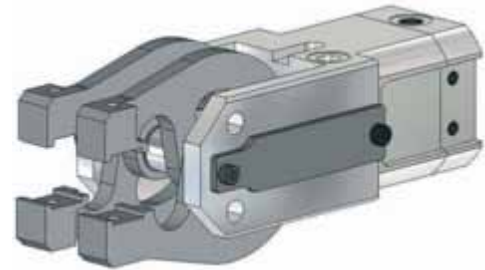
Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

Medium: air, max. 6 bar, operation with oil-free air is permissible.
Please order separately accessories such as gripper teeth, sensing and adaptors



Series 84A3-3 Product Overview

Model	Opening angle
84A3-330000000	76°
84A3X330000000	30°
84A3Y330000000	45°
84A3Z330000000	60°



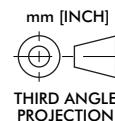
Note!

Addition of the gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind the gripper teeth.

Note!

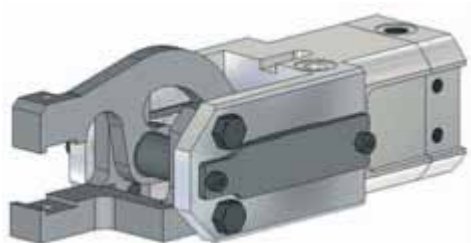
Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

Medium: air, max. 6 bar, operation with oil-free air is permissible.
Please order separately accessories such as gripper teeth, sensing and adaptors

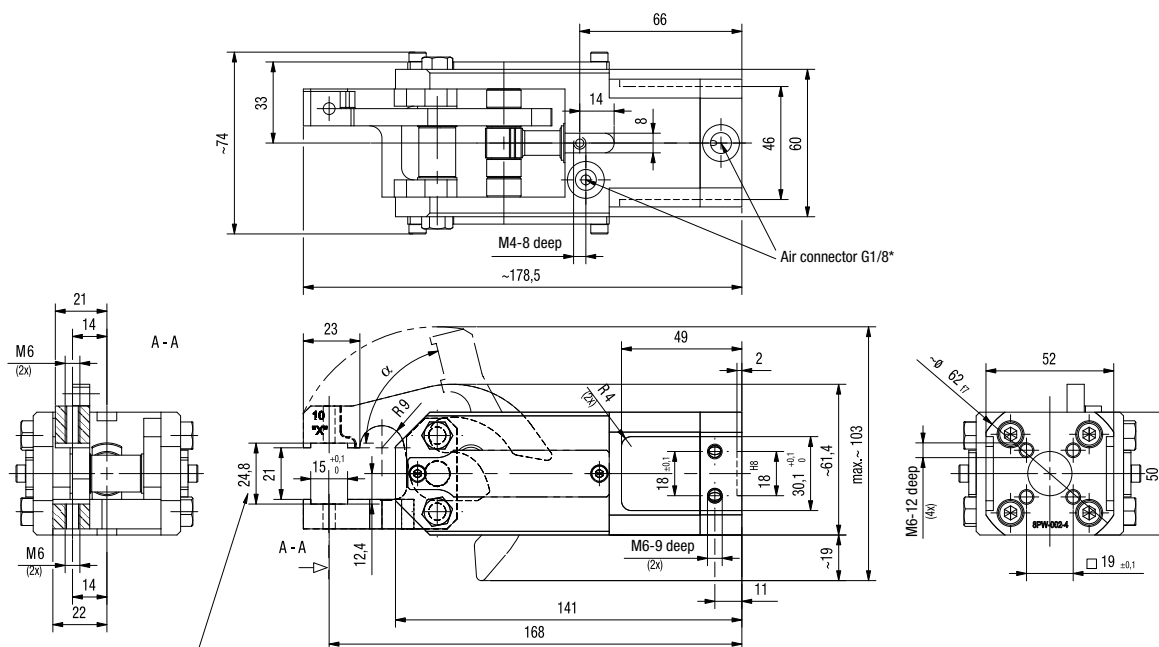


THIRD ANGLE
PROJECTION

Series 84A3-3 Product Overview



Model	Opening angle
84A3-340000000	76°
84A3X340000000	30°
84A3Y340000000	45°
84A3Z340000000	60°



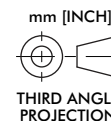
Note!

NOTE: Addition of the gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind the gripper teeth.

Note!

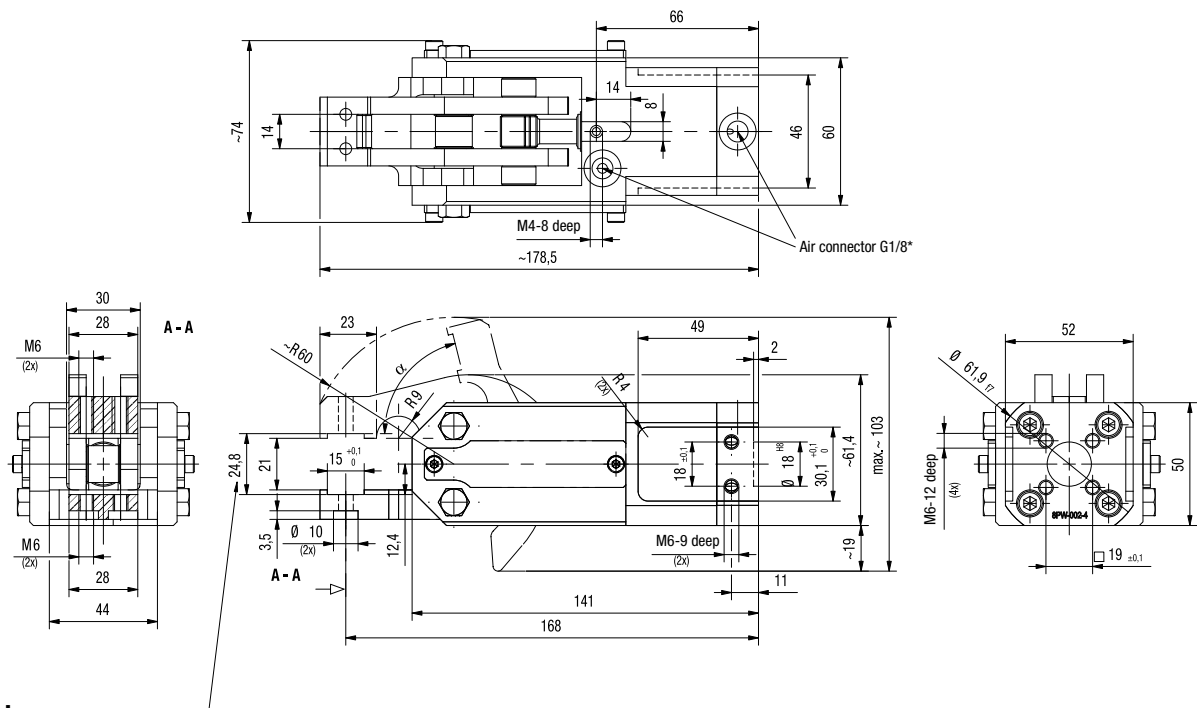
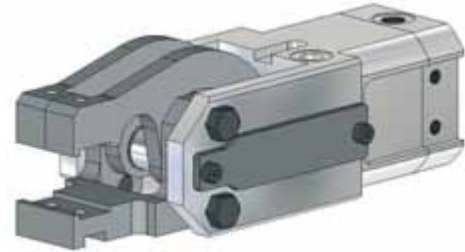
Note:
Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

Medium: air, max. 6 bar, operation with oil-free air is permissible.
Please order separately accessories such as gripper teeth, sensing and adaptors



Series 84A3-3 Product Overview

Model	Opening angle
84A3-350000000	76°
84A3X350000000	30°
84A3Y350000000	45°
84A3Z350000000	60°



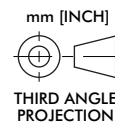
Note!

Addition of the gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind the gripper teeth.

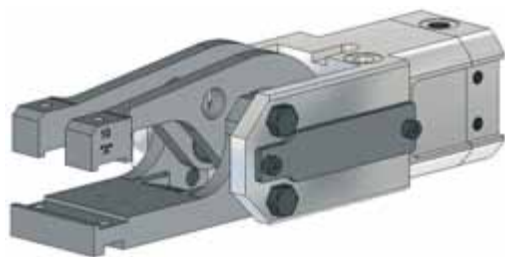
Note!

Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

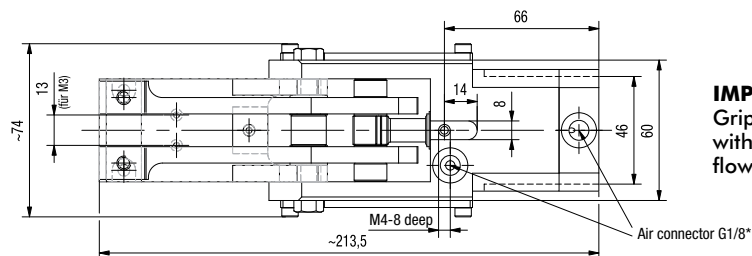
Medium: air, max. 6 bar, operation with oil-free air is permissible.
Please order separately accessories such as gripper teeth, sensing and adaptors



Series 84A3-3 Product Overview

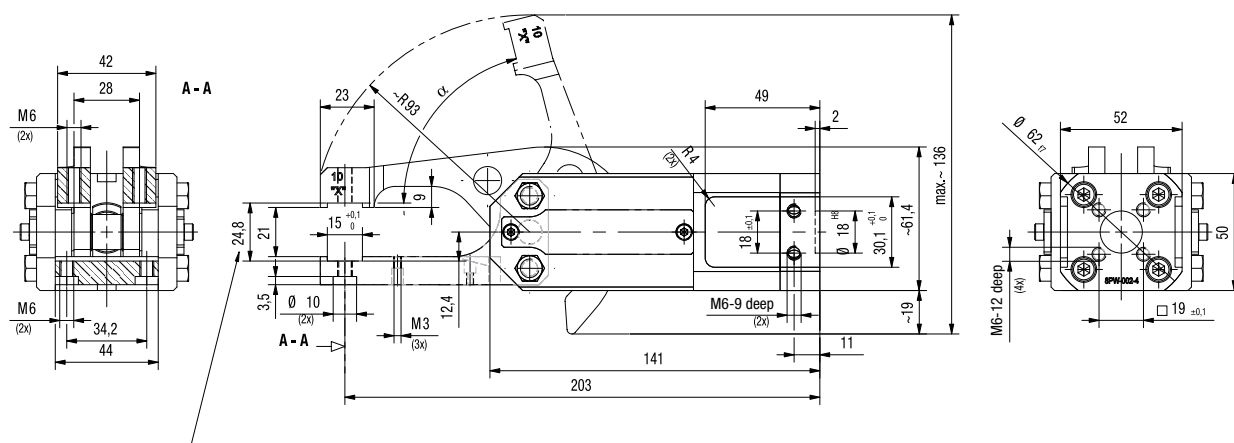


Model	Opening angle
84A3-360000000	76°
84A3X360000000	30°
84A3Y360000000	45°
84A3Z360000000	60°



IMPORTANT:

Gripper must only be operated with external pneumatic one way flow control valves



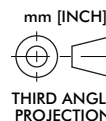
Note!

Addition of the gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind the gripper teeth.

Note!

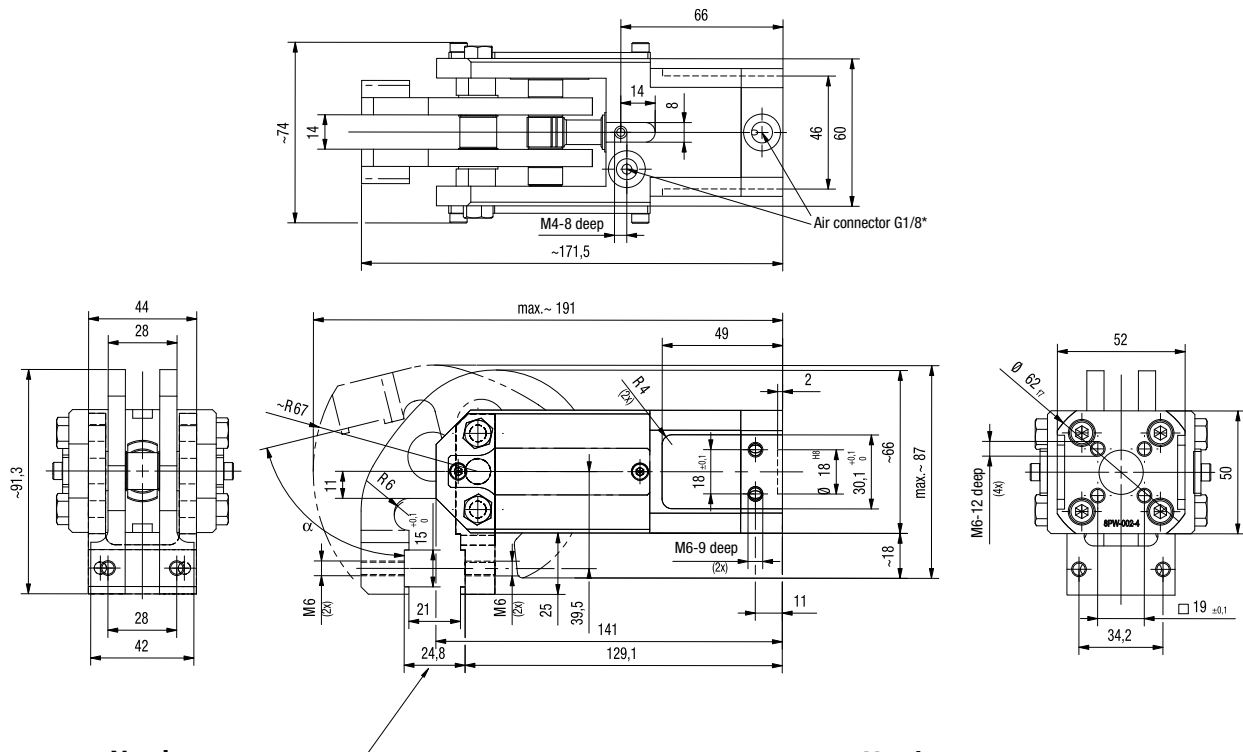
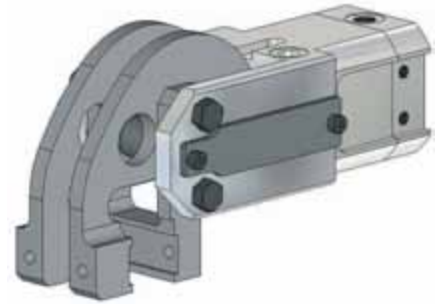
Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

Medium: air, max. 6 bar, operation with oil-free air is permissible.
Please order separately accessories such as gripper teeth, sensing and adaptors



Series 84A3-3 Product Overview

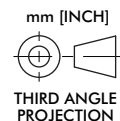
Model	Opening angle
84A3-370000000	76°
84A3X370000000	30°
84A3Y370000000	45°
84A3Z370000000	60°



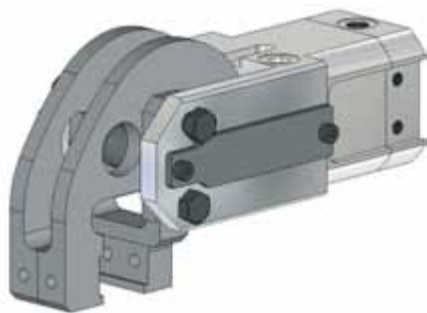
Note!
Addition of the gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind the gripper teeth.

Note!
Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

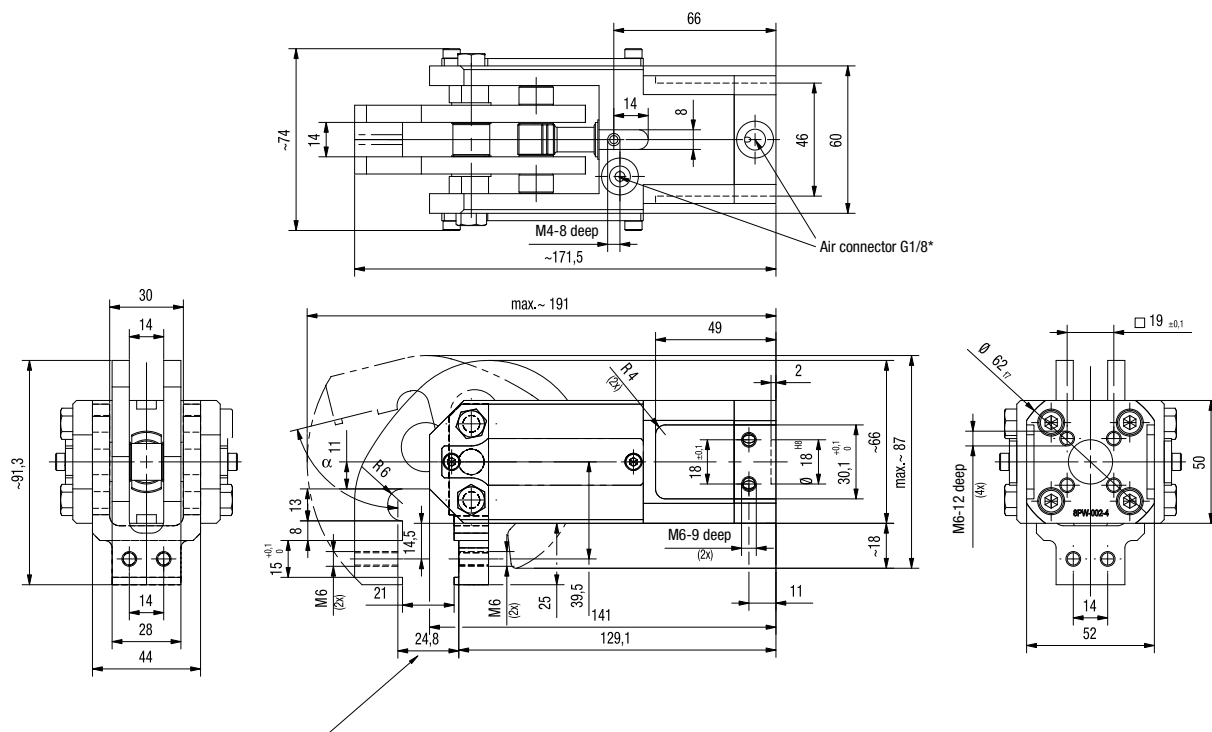
Medium: air, max. 6 bar, operation with oil-free air is permissible.
Please order separately accessories such as gripper teeth, sensing and adaptors



Series 84A3-3 Product Overview



Model	Opening angle
84A3-380000000	76°
84A3X380000000	30°
84A3Y380000000	45°
84A3Z380000000	60°



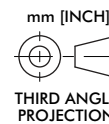
Note!

Addition of the gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind the gripper teeth.

Note!

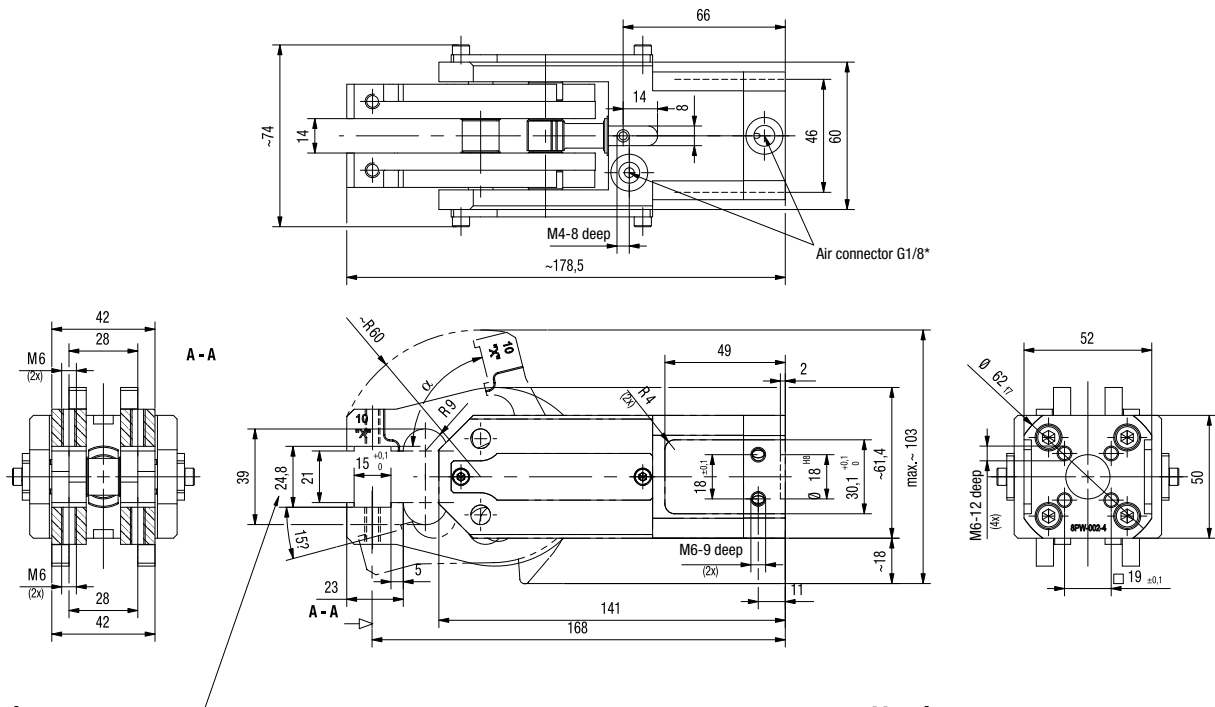
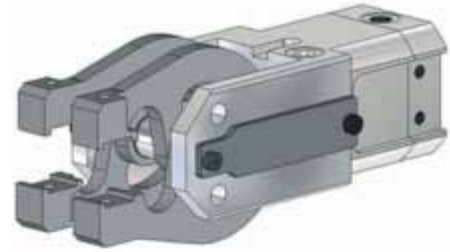
Note:
Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

Medium: air, max. 6 bar, operation with oil-free air is permissible.
Please order separately accessories such as gripper teeth, sensing and adaptors



Series 84A3-3 Product Overview

Model	Opening angle	
84A3R330000000	upper 76°	lower 15°
84A3S330000000	upper 30°	lower 15°
84A3T330000000	upper 45°	lower 15°
84A3U330000000	upper 60°	lower 15°



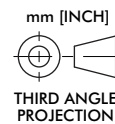
Note!

NOTE: Addition of the gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind the gripper teeth.

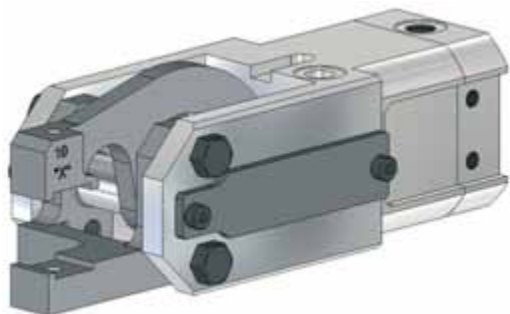
Note!

Note:
Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

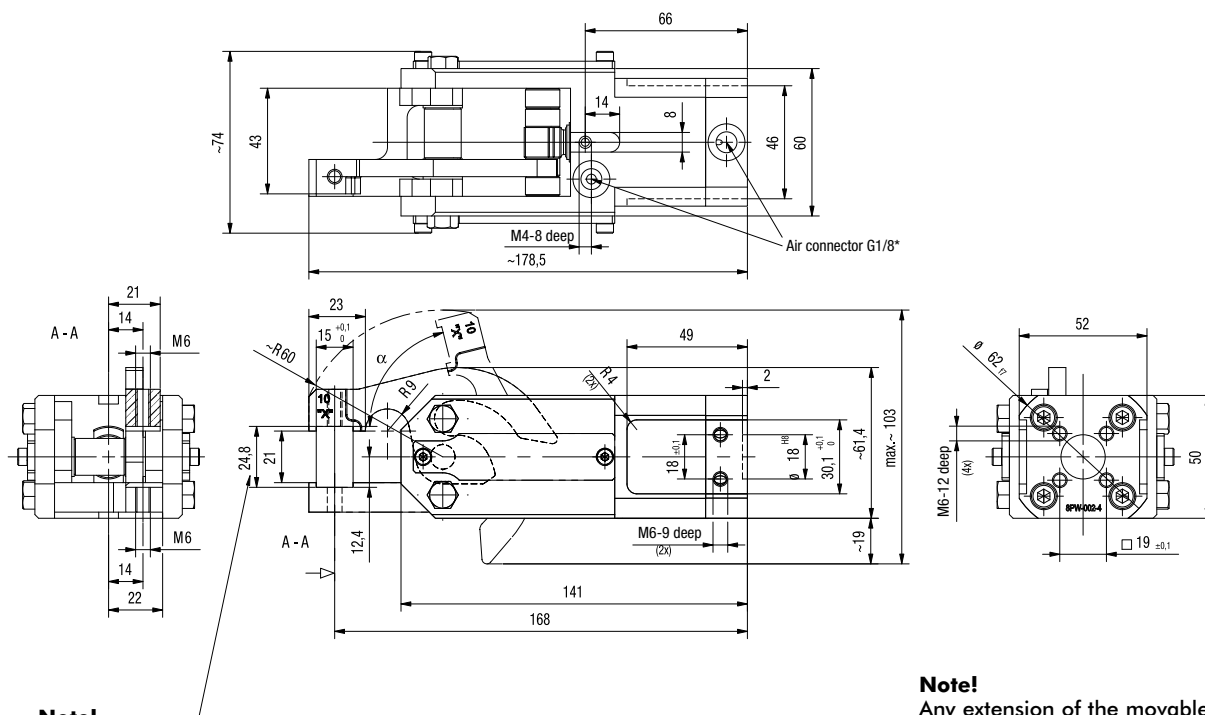
Medium: air, max. 6 bar, operation with oil-free air is permissible.
Please order separately accessories such as gripper teeth, sensing and adaptors



Series 84A3-3 Product Overview



Model	Opening angle
84A3-390000000	76°
84A3X390000000	30°
84A3Y390000000	45°
84A3Z390000000	60°



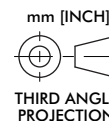
Note!

Note: Addition of the gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind the gripper teeth.

Note!

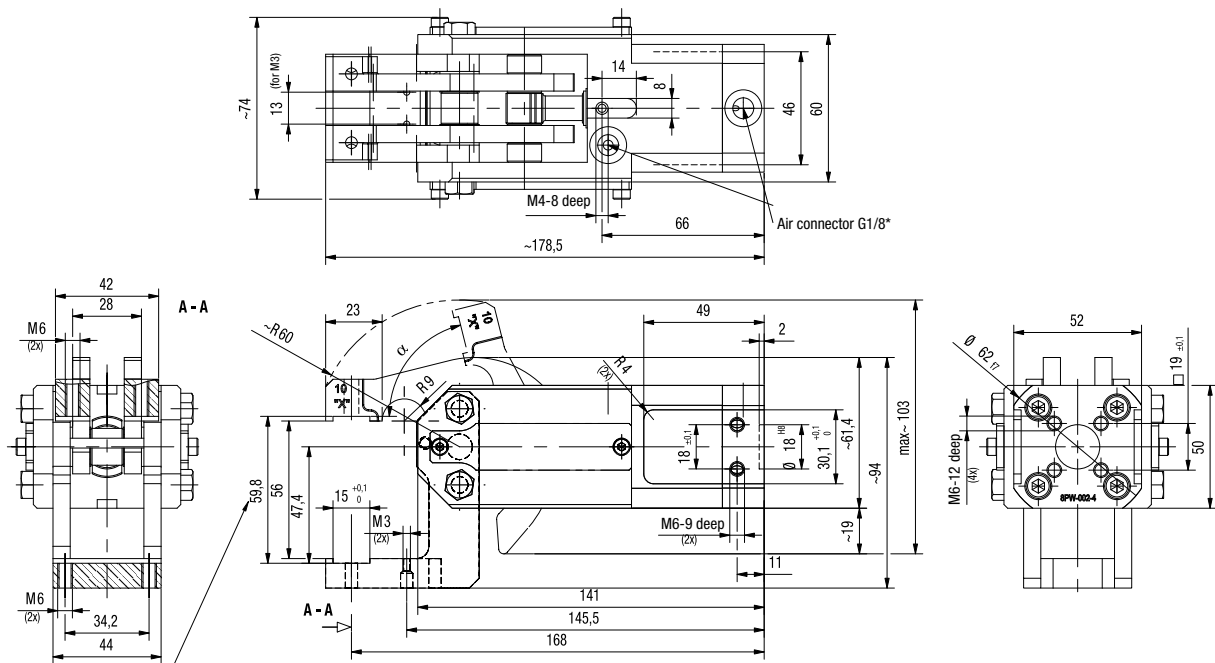
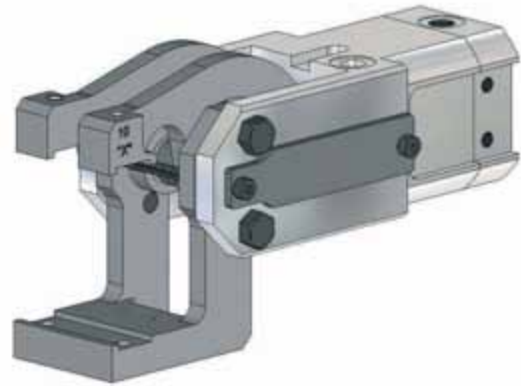
Note:
Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

Medium: air, max. 6 bar, operation with oil-free air is permissible.
Please order separately accessories such as gripper teeth, sensing and adaptors



Series 84A3-3 Product Overview

Model	Opening angle
84A3-300000000	76°
84A3X300000000	30°
84A3Y300000000	45°
84A3Z300000000	60°



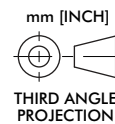
Note!

Addition of the gripper teeth height and thickness of the clamped plate must be 59,8 mm. It might be necessary to use shim plates or to grind the gripper teeth.

Note!

Note:
Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

Medium: air, max. 6 bar, operation with oil-free air is permissible.
Please order separately accessories such as gripper teeth, sensing and adaptors



Series 84A3-3 Overview of Accessories

Gripper teeth steel



8JZ-014-3
8JZ-001-1
8JZ-003-1

Gripper teeth plastic



8JZ-021-1
8JZ-023-1

Crown teeth



8JZ-016-2
8JZ-018-2

For transfer free of deformation and swarf

Gripper points



8MJ-1001-1
8MJ-1002-1
8MJ-1003-1

Gripper jaw, top: Gripper teeth, Gripper points, Crown teeth – Dimensions see page 17.52

Gripper teeth steel



8JZ-014-3
8JZ-001-1
8JZ-003-1

Gripper teeth plastic



8JZ-021-1

Crown teeth



8JZ-019-1
8JZ-020-3

For transfer free of deformation and swarf

Gripper jaw, bottom: Gripper teeth, Gripper points, Crown teeth – Dimensions see page 17.52

8MA-006-1



8MA-273-1



8MH-046-1



82ZB-007-1



82ZB-033-2



Adapters / Limit stops – Dimensions see page 17.55

8EA-092-1

workplace control
switching distance
7 mm



8EA-087-1

workplace control



8EA-022-4

Position control
set Mounting left or
right side for opening
angle 76°



Shims for workplace
control A5/A7
ordering-no.:
8MB-003-1
(to be ordered
separately)



Sensing systems – Dimensions see page 17.58

Accessories

Specification	Order no. for 84A3
Connector (1 connector socket & 5 m cable)	
Connector socket M12x1, straight, 5-pin	8EL-002-1
Connector socket M12x1, angular, 4-pin	8EL-003-1
Opening angle limitation spacer (2 pcs required)	
60°	8MF-046-1
45°	8MF-039-1
30°	8MF-045-1

Major spare parts

Specification	Order no. for 84A3
Cylinder	8PW-002-4
Seal kit	8PW-002-2-00

Accessories: sensing systems

Gripper	Sensors	Sensing systems			Accessories	
		8EA-092-1	8EA-087-1	8EA-022-4*	8MB-003-1	
		Switching distance 8 mm	Angle sensor	End position sensing	Shims	
84A3_310000000		●	●	●	●	
84A3_320000000		●	●	●	●	
84A3_330000000			●	●		
84A3_340000000			●	●		
84A3_350000000			●	●		
84A3_360000000		●	●	●	●	
84A3_370000000			●	●		
84A3_380000000			●	●		
84A3_390000000			●	●		
84A3_300000000		●	●	●	●	
						

* Only for opening angle 76°

Accessories: gripper teeth

Gripper teeth	Steel			Plastic			Crown teeth (For transfer free of deformation and swarf)				Gripper points			Shims				
	8JZ-014-3	8JZ-001-1	8JZ-003-1		8JZ-021-1	8JZ-023-1			8JZ-016-2	8JZ-018-2	8JZ-019-1	8JZ-020-3				8MJ-1001-1	8MJ-1002-1	8MJ-1003-1
84A3_31..	bottom	●				●					●	●						●
	top	●				●			●	●			●		●	●	●	●
84A3_32..	bottom	●				●					●	●						●
	top	●				●			●	●					●	●	●	●
84A3_33..	bottom	●	●			●									●	●	●	●
	top	●	●			●									●	●	●	●
84A3_34..	bottom	●	●															●
	top	●													●	●	●	●
84A3_35..	bottom	●	●															●
	top	●													●	●	●	●
84A3_36..	bottom	●				●					●	●						●
	top	●				●			●	●					●	●	●	●
84A3_37..	bottom	●				●					●	●						●
	top					●			●	●					●	●	●	●
84A3_38..	bottom		●															●
	top														●	●	●	●
84A3_39..	bottom		●															●
	top														●	●	●	●
84A3_30..	bottom					●					●	●						●
	top					●			●	●					●	●	●	●

Steel gripper teeth	Depth of tooth
8JZ-014-3	12,00
8JZ-006-1	11,9
8JZ-001-1	14,00
8JZ-025-1	11,90
8JZ-003-1	9,80
8JZ-005-1	9,80

Plastic gripper teeth	Depth of tooth
8JZ-021-1	13,00
8JZ-023-1	13,00

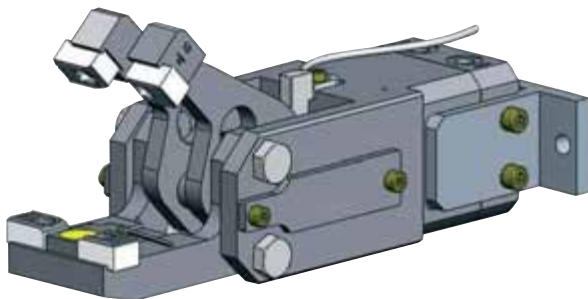
Gripper points	M6 length of thread
8MJ-1001	25,4
8MJ-1002	25,4
8MJ-1003	25,4

Crown teeth	Depth of tooth	for material thickness
8JZ-016-2	9,80	0,8 – 1,0
8JZ-018-2	9,30	1,3 – 1,5
8JZ-019-1	13,20	./.
8JZ-020-3	13,20	

[illegible]

Series 84A5-1 Product Overview

Model: **84A5-11GNAAAAA**



Application:

Gripping, Holding, Placing, Removing and Transporting of metal sheets and other parts, mainly in jigs, press-automation and handling systems.

Features:

- Compact modular design
- Mounting areas lateral and rear
- fast opening and closing action
- high clamping force
- sensor available

Order no. Example: **84A5 - 11 A8 A AA AA**

Opening angle	Standard -76°		84A5-11 = Base model 1 fixed gripper jaw, 2 movable gripper jaws, Straight design
			84A5X11 = Base model 1 fixed gripper jaw, 2 movable gripper jaws, Straight design
			84A5Y11 = Base model 1 fixed gripper jaw, 2 movable gripper jaws, Straight design
			84A5Z11 = Base model 1 fixed gripper jaws Straight design
Opening angle	Standard -76°		84A5-13 = Base model 2 Upper movable jaws 2 Lower movable jaws, Straight design
			84A5X13 = Base model 2 Upper movable jaws, 2 Lower movable jaws, Straight design
			84A5Y13 = Base model 2 Upper movable jaws, 2 Lower movable jaws, Straight design
			84A5Z13 = Base model 2 Upper movable jaws, 2 Lower movable jaws, Straight design
Opening angle	Standard -76°		84A5R13 = Base model 2 Upper movable jaws, 2 Lower movable jaws, 15° Straight design
			84A5S13 = Base model 2 Upper movable jaws, 2 Lower movable jaws, 15° Straight design
			84A5T13 = Base model 2 Upper movable jaws, 2 Lower movable jaws, 15° Straight design
			84A5U13 = Base model 2 Upper movable jaws, 2 Lower movable jaws, 15° Straight design

Base model

00 = without sensing system

A8 = 8EA-092-1 workplace control switching distance 7mm for 84A5-11

D5 = 8EA-087-1 double blank detector

GK = combination 2 x D5

GN = combination A8 + D5

Sensing system

Shims for workplace control A8
ordering-no.: 8MB-003-1 to be ordered separately

0 = without accessories

A = 8MA-006-1

Accessories

gripper teeth: steel

00 = without

AA = 8JZ-014-3

gripper teeth: plastic

KA = 8JZ-021-1

Lower gripper teeth

gripper teeth: steel

00 = without

AA = 8JZ-014-3

gripper teeth: plastic

KA = 8JZ-021-1

gripper points:

PA = 8MJ-1001-1

PB = 8MJ-1002-1

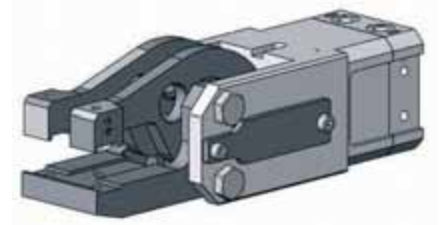
PC = 8MJ-1003-1

Upper gripper teeth/gripper points

Shims for gripper teeth
ordering-no.: 8SB-003-1
to be ordered separately
Dimension: 14,8 x 13 x 0,15 mm

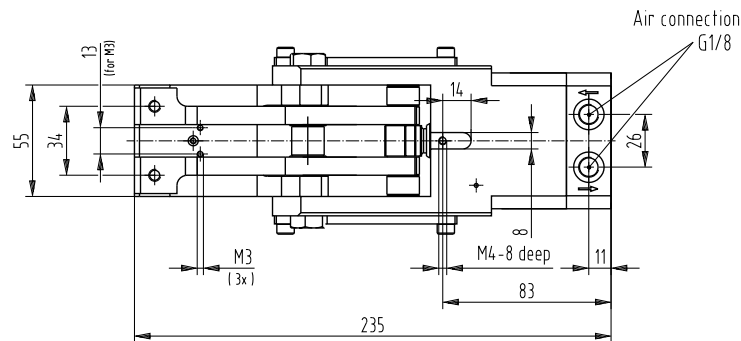
Base model

Series 84A5-1 Technical Information

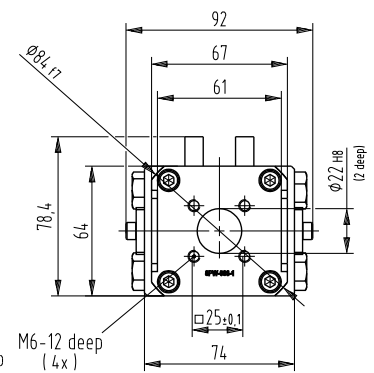
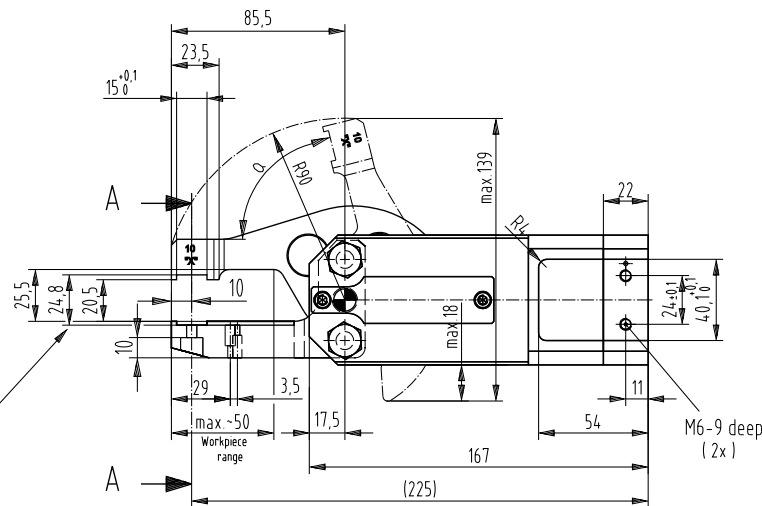
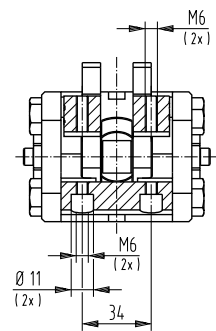


84A5-110000000

Model	Gripping force at 5 bar N [lbs]	Piston Ø mm [in]	Air consumption per double stroke at 5 bar dm ³ [ft ³]	Weight ~ Kg [lbs]	Min Opening time sec.	Min Closure time sec.
84A5-11...	2000 [449]	50 [1.97]	0,66 [0.02]	2,8 [6.16]	0,6	0,6



Section: A - A



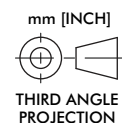
Note!

Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or grind the gripper teeth.

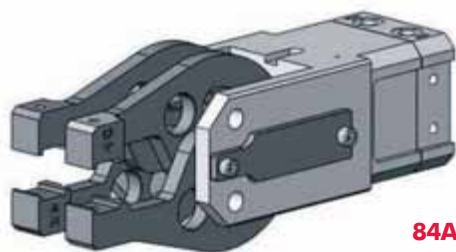
Note!

Any extension of the movable, or the fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

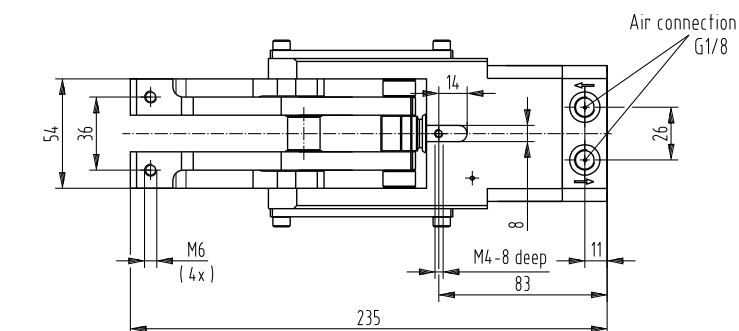
Medium air, max. 6 bar
Operation with oil-free air is permissible.



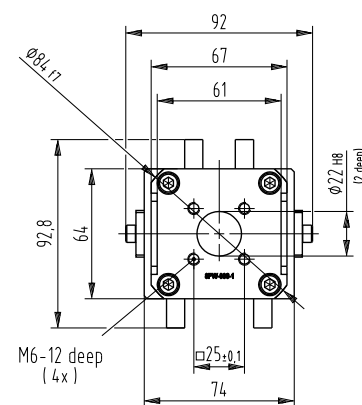
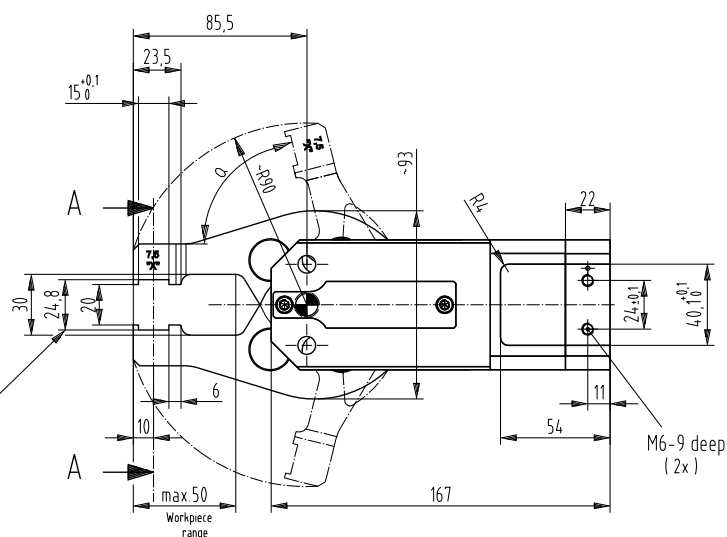
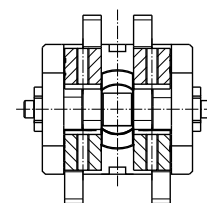
Series 84A5-1 Technical Information


84A5-130000000

Model	Gripping force at 5 bar N [lbs]	Piston Ø mm [in]	Air consumption per double stroke at 5 bar dm ³ [ft ³]	Weight ~ Kg [lbs]	Min Opening time sec.	Min Closure time sec.
84A5-13...	1200 [270]	50 [1.97]	0,66 [0.02]	2,8 [6.16]	0,6	0,6



Section: A - A



Note!

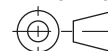
Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or grind the gripper teeth.

Note!

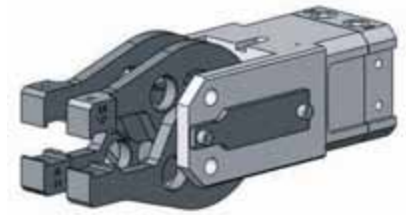
Any extension of the movable, or the fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

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

mm [INCH]

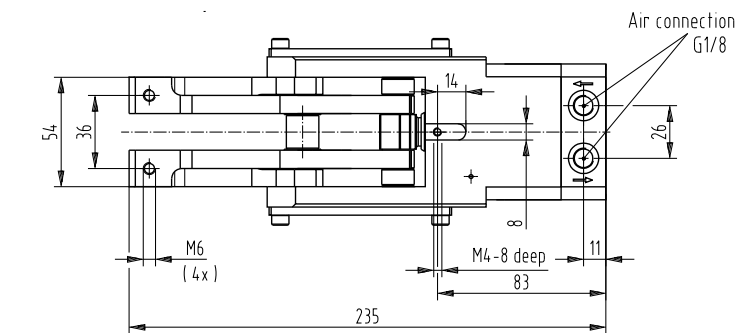

THIRD ANGLE
PROJECTION

Series 84A5-1 Technical Information

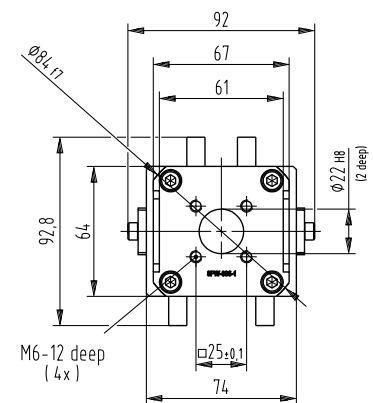
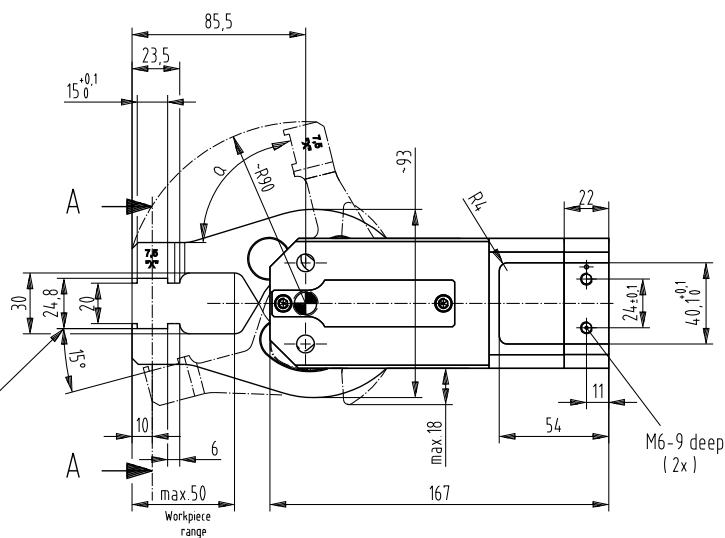
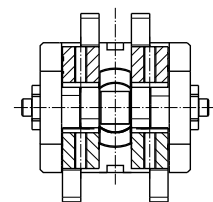


84A5-R130000000

Model	Gripping force at 5 bar N [lbs]	Piston Ø mm [in]	Air consumption per double stroke at 5 bar dm ³ [ft ³]	Weight ~ Kg [lbs]	Min Opening time sec.	Min Closure time sec.
84A5-R13...	1200 [270]	50 [1.97]	0,66 [0.02]	2,8 [6.16]	0,6	0,6



Section: A - A



Note!

Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or grind the gripper teeth.

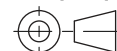
Note!

Any extension of the movable, or the fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

Medium air, max. 6 bar

Operation with oil-free air is permissible.

mm [INCH]



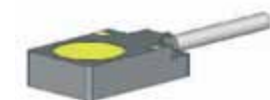
THIRD ANGLE
PROJECTION

Series 84A5-1 Technical Information

Possible combinations – Gripper teeth/Pins for Cam type gripper **Series 84A5-11**

Gripper teeth / Pins above

Gripper teeth / Pins below	8JZ-014-3	8JZ-021-1	8MJ-1001-1	8MJ-1002-1	8MJ-1003-1
	with sensor without sensor	with sensor without sensor	with sensor without sensor	with sensor without sensor	with sensor without sensor
	without sensor	without sensor	without sensor	without sensor	without sensor
	without sensor	without sensor	without sensor	without sensor	without sensor
	without sensor	without sensor	without sensor	without sensor	without sensor
	without sensor	without sensor	without sensor	without sensor	without sensor



sensor for workplace
8EA-092-1



8JZ-014-3
steel



8JZ-021-1
plastic



8MJ-1001-1
steel



8MJ-1002-1
steel

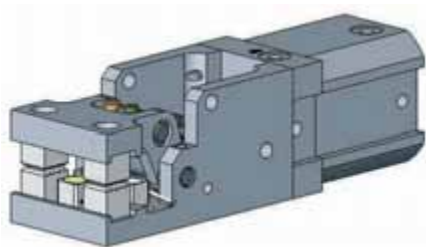


8MJ-1003-1
steel

mounting "M6"

[illegible]

Series 84L2-1 Product Overview



Application:

Gripping, Holding, Placing, Removing and Transporting of metal sheets and other parts, mainly in jigs, press-automation and handling systems.

Features:

- Compact modular design
- Fast opening and closing action
- Mounting lateral and rear possible
- High clamping force
- Interchangeable in mounting dimensions with 84A2-1
- Add-on component and end position sensing available

Order no. Example: **84L2 - 11 D4 0 BA BA**

84L2-11 = Base model straight design



84L2-14 = Base model small, right version



84L2-16 = Base model small, left version



Base model

00 = without sensing system

D4 = 8EA-075-2
switching distance 3,0 mm
with 2m cable



D7 = 8EA-075-3
switching distance 3,0 mm
with plug M12 x 1



Sensing system

0 = without adapter/accessories

I = 8MA-165-1 – Ø20 mm
J = 8MA-166-1 – Ø25 mm
Z = 8MA-168-1 – Ø 1"



V = 8MA-147-1



W = 82ZB-025-2



Adapter

00 = without gripper teeth

BA = 8JZ-027-1
10x10x10 Steel



BB = 8JZ-028-1
10x10x10 Steel



KF = 8JZ-045-1
10x10x10 PU-90 Shore plastic



Gripper teeth steel/
plastic, lower

00 = without Gripper teeth/points

BA = 8JZ-027-1
10x10x10 Steel



BB = 8JZ-028-1
10x10x10 Steel



KF = 8JZ-045-1
10x10x10 PU-90 Shore plastic



PH = 8JZ-029-1
Steel

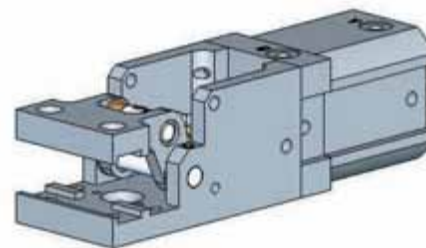


Gripper teeth/points steel/
plastic, upper

Shims for gripper teeth
ordering-no.: 85B-003-1
(to be ordered separately)
Dimensions: 10 x 10 x 0,1 mm

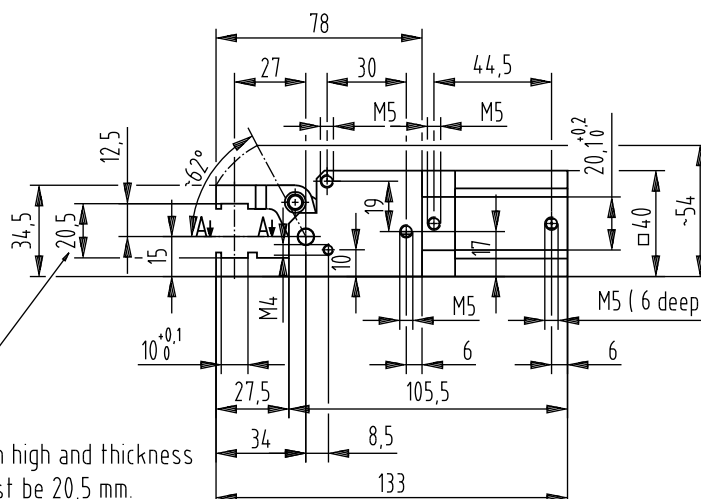
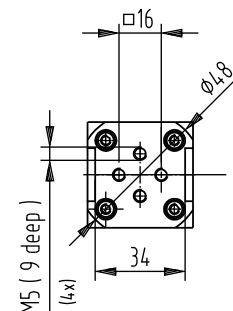
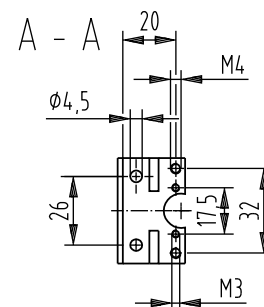
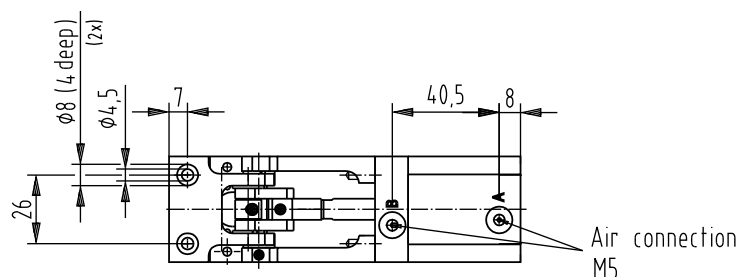


Series 84L2-1 Technical Information



84L2-110000000

Model	Gripping force at 5 bar N [lbs]	Piston Ø mm [in]	Air consumption per double stroke at 5 bar dm³ [ft³]	Weight ~ Kg [lbs]	Min Opening time sec.	Min Closure time sec.
84L2-11...	74 [17]	25 [0.98]	0,19 [0.01]	0,4 [0.88]	0,2	0,2



Note!

Addition of gripper teeth high and thickness of the clamped plate must be 20,5 mm.
If might be necessary to use shim plates or of grind the gripper teeth.

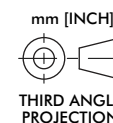
Note!

Any extension of the movable, or the fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

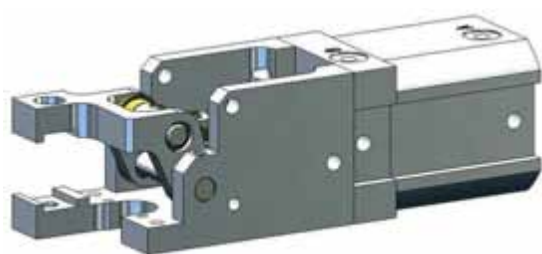
Medium air, max. 6 bar

Operation with oil-free air is permissible.

Turning cyl.-air connection possible in
4x 90° increments.

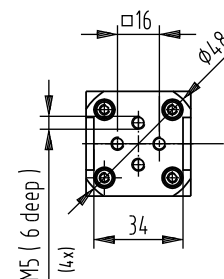
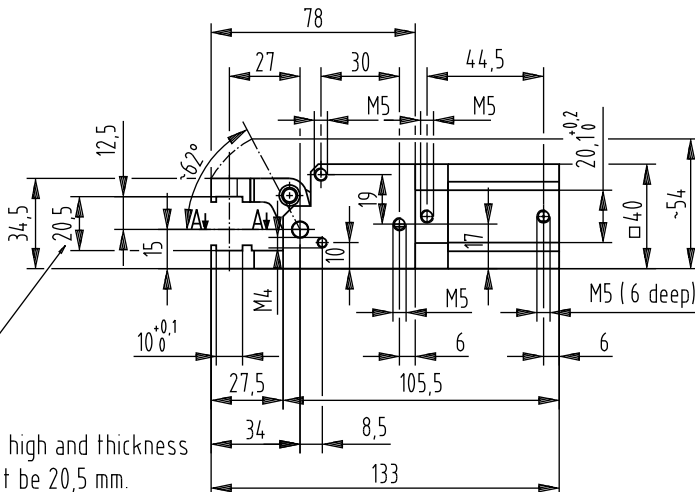
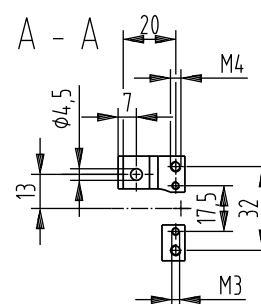
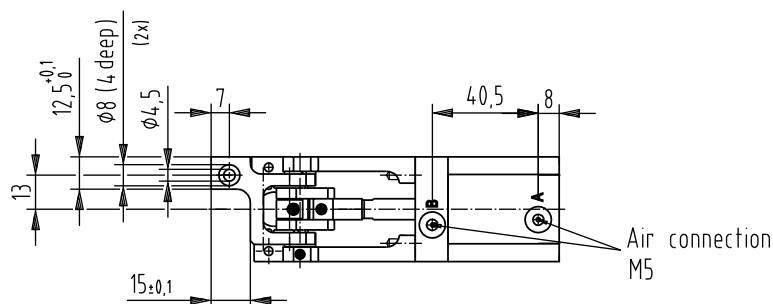


Series 84L2-1 Technical Information



84L2-140000000

Model	Gripping force at 5 bar N [lbs]	Piston Ø mm [in]	Air consumption per double stroke at 5 bar dm ³ [ft ³]	Weight ~ Kg [lbs]	Min Opening time sec.	Min Closure time sec.
84L2-14...	74 [17]	25 [0.98]	0,19 [0.01]	0,37 [0.81]	0,2	0,2

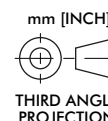


Note!
Addition of gripper teeth high and thickness of the clamped plate must be 20,5 mm.
If might be necessary to use shim plates or of grind the gripper teeth.

Note!
Any extension of the movable, or the fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

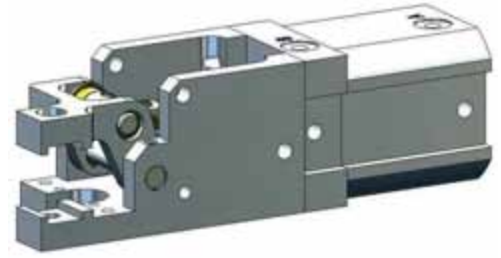
Medium air, max. 6 bar
Operation with oil-free air is permissible.

Turning cyl.-air connection possible in 4x 90° increments.



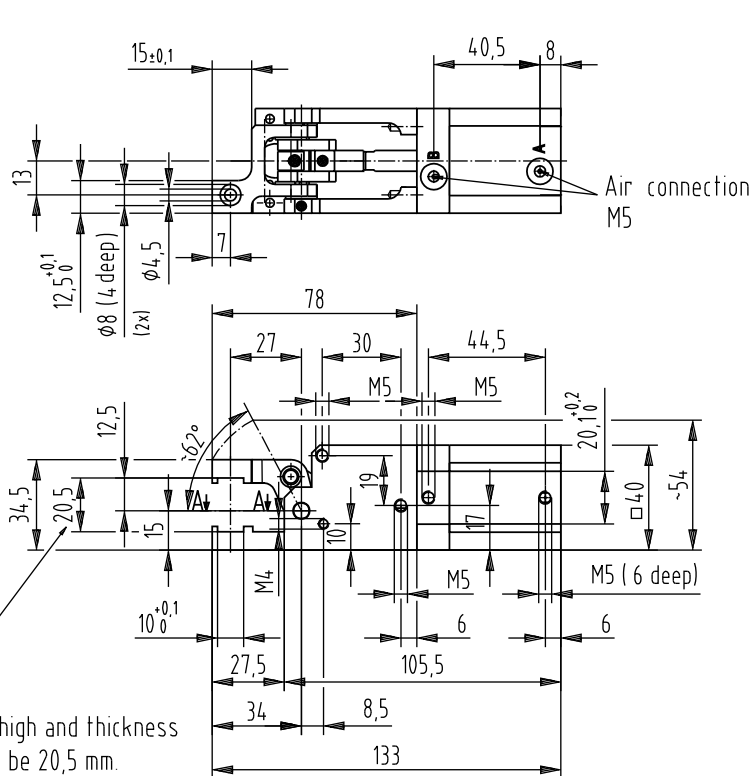
THIRD ANGLE
PROJECTION

Series 84L2-1 Technical Information



84L2-160000000

Model	Gripping force at 5 bar N [lbs]	Piston Ø mm [in]	Air consumption per double stroke at 5 bar dm³ [ft³]	Weight ~ Kg [lbs]	Min Opening time sec.	Min Closure time sec.
84L2-16...	74 [17]	25 [0.98]	0,19 [0.01]	0,37 [0.81]	0,2	0,2

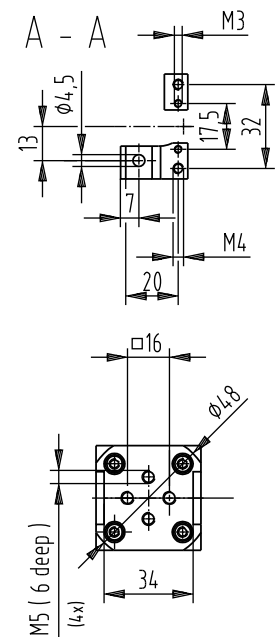


Note!

Addition of gripper teeth high and thickness of the clamped plate must be 20,5 mm.
If might be necessary to use shim plates or of grind the gripper teeth.

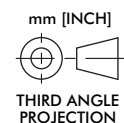
Note!

Any extension of the movable, or the fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

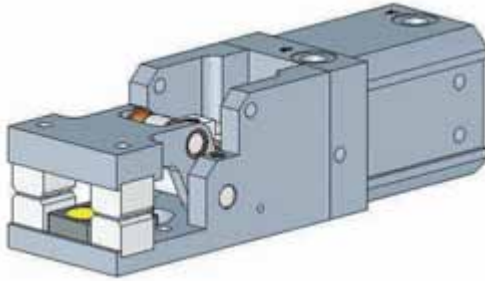


Medium air, max. 6 bar
Operation with oil-free air is permissible.

Turning cyl.-air connection possible in
4x 90° increments.



Series 84L3-2 Product Overview



Application:

Gripping, Holding, Placing, Removing and Transporting of metal sheets and other parts, mainly in jigs, press-automation and handling systems.

Features:

- Compact modular design
- Fast opening and closing action
- Mounting lateral and rear possible
- High clamping force
- Interchangeable in mounting dimensions with 84A3-3
- Add-on component and end position sensing available

Order no. Example: **84L3** - **21** **A8** **0** **AC** **AC**

84L3-21 = Base model straight design



84L3-24 = Base model small, right version



84L3-26 = Base model small, left version



Base model

00 = without sensing system

A8 = 8EA-092-1
Workpiece control switching distance 7mm 2m cable, open wire



A9 = 8EA-092-2
Workpiece control switching distance 7mm plug M12 x 1, 3 pin



Sensing system

Shims for workpiece control A8 + A9
ordering-no.: 8MB-003-1
to be ordered separately



0 = without adapter / accessories

A = 8MA-006-1



S = 82ZB-007-1



X = 82ZB-033-2



Adapter

00 = without gripper teeth

AA = 8JZ-014-3
15x21x12



AC = 8JZ-043-1
15x14x12



AG = 8JZ-050-1
15x14x12



Gripper teeth steel, lower

00 = without Gripper teeth / points

AA = 8JZ-014-3
15x21x12



AC = 8JZ-043-1
15x14x12



AG = 8JZ-050-1
15x14x12



PA = 8MJ-1001-1



PB = 8MJ-1002-1

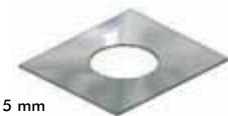


PC = 8MJ-1003-1

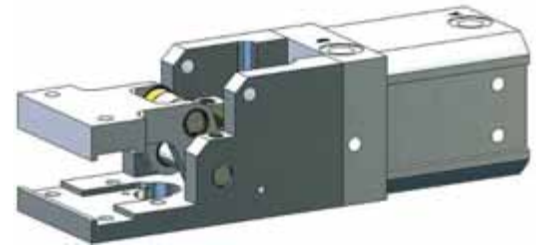


Gripper teeth / points steel, upper

Shims for gripper teeth
ordering-no.: 8SB-003-1
to be ordered separately
Dimension: 14,8 x 13 x 0,15 mm

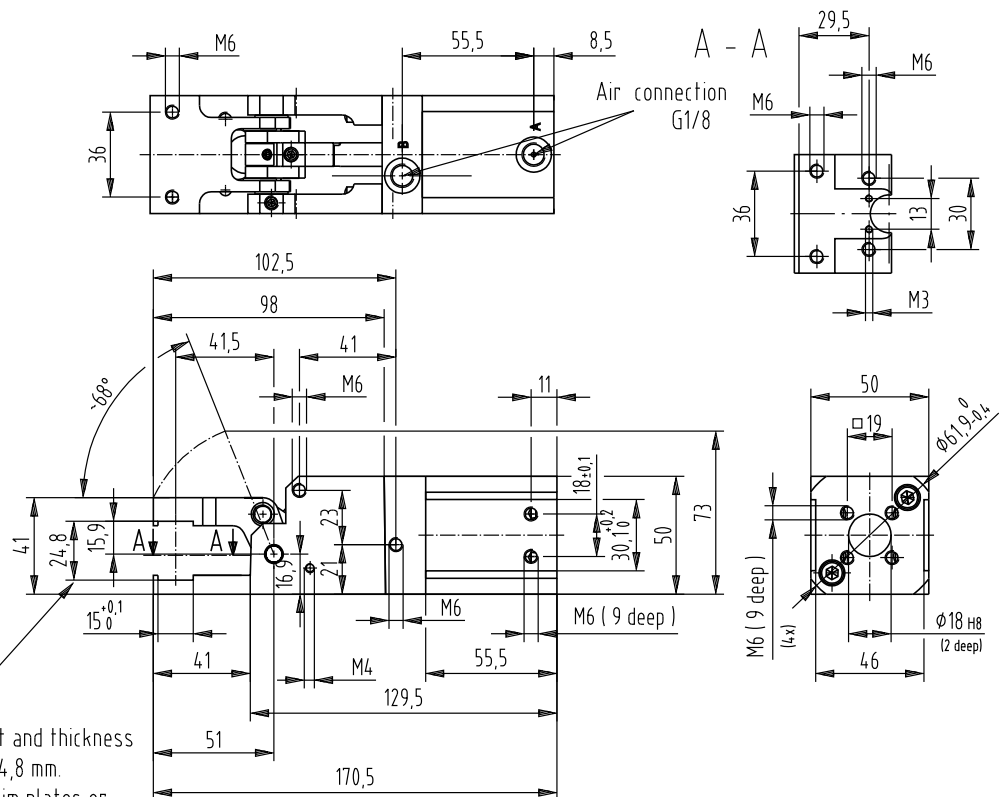


Series 84L3-2 Technical Information



84L3-210000000

Model	Gripping force at 5 bar N [lbs]	Piston Ø mm [in]	Air consumption per double stroke at 5 bar dm ³ [ft ³]	Weight ~ Kg [lbs]	Min Opening time sec.	Min Closure time sec.
84L3-21...	135 [30]	32 [1.26]	0,3 [4]	0,8 [1.76]	0,2	0,2

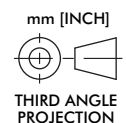


Note!
Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm.
It might be necessary to use shim plates or grind the gripper teeth.

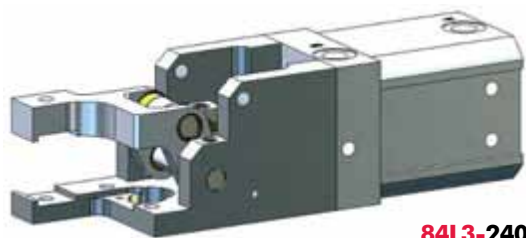
Note!
Any extension of the movable, or the fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

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

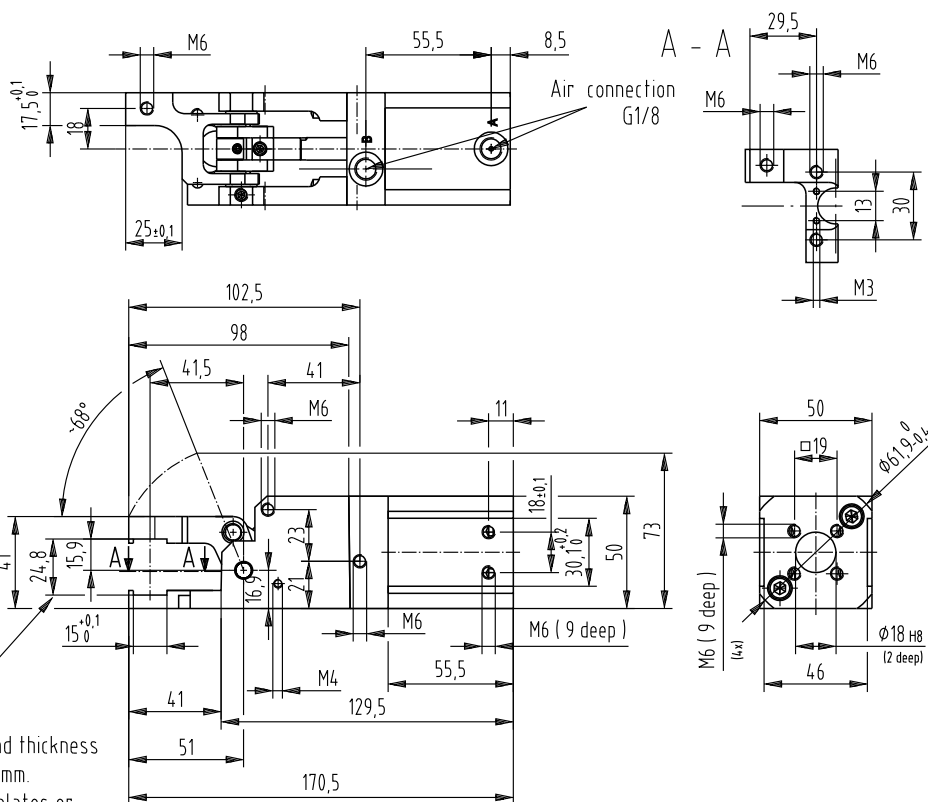
Center the cyl.-air connection about 4x 90° possible.



Series 84L3-2 Technical Information


84L3-240000000

Model	Gripping force at 5 bar N [lbs]	Piston Ø mm [in]	Air consumption per double stroke at 5 bar dm ³ [ft ³]	Weight ~ Kg [lbs]	Min Opening time sec.	Min Closure time sec.
84L3-24...	135 [30]	32 [1.26]	0,3 [4]	0,75 [1.65]	0,2	0,2



Note!

Addition of gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or grind the gripper teeth.

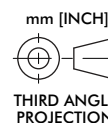
Note!

Any extension of the movable, or the fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

Medium air, max. 6 bar

Operation with oil-free air is permissible.

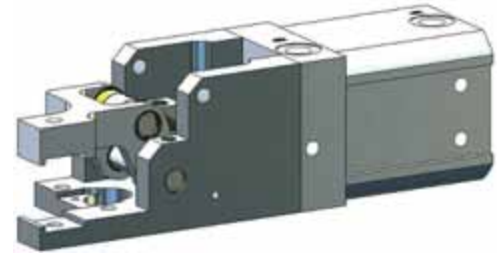
Center the cyl.-air connection about 4x 90° possible.



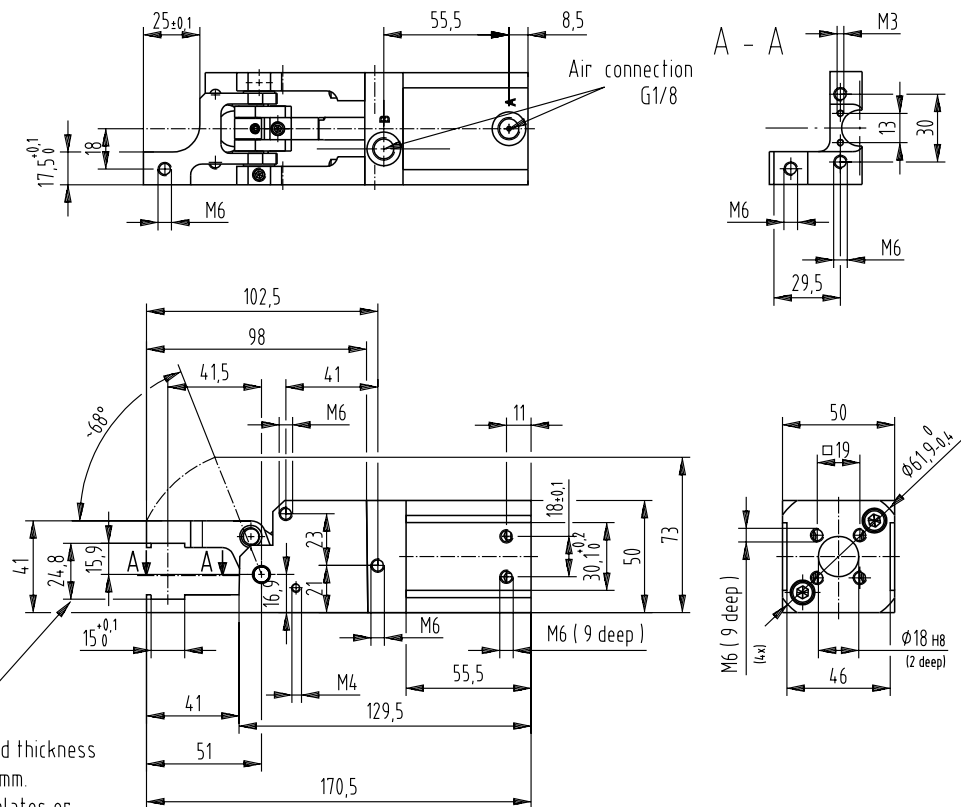
THIRD ANGLE
PROJECTION

Series 84L3-2 Technical Information

84L3-260000000



Model	Gripping force at 5 bar N [lbs]	Piston Ø mm [in]	Air consumption per double stroke at 5 bar dm ³ [ft ³]	Weight ~ Kg [lbs]	Min Opening time sec.	Min Closure time sec.
84L3-26...	135 [30]	32 [1.26]	0,3 [4]	0,75 [1.65]	0,2	0,2

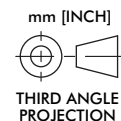


Note!
Addition of gripper teeth height and thickness
of the clamped plate must be 24,8 mm.
It might be necessary to use shim plates or
grind the gripper teeth.

Note!
Any extension of the movable,
or the fixed gripper jaws as well as
the additional attachment of weights
will repeal the guarantee.

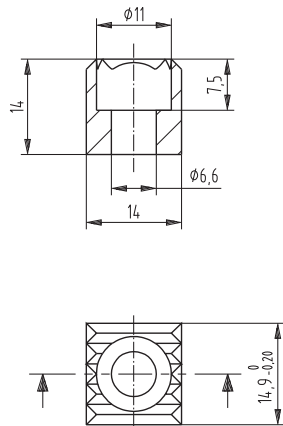
Medium air, max. 6 bar
Operation with oil-free air is permissible.

Center the cyl.-air connection about
4x 90° possible.

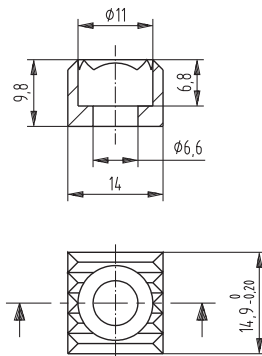


Steel Gripper Teeth

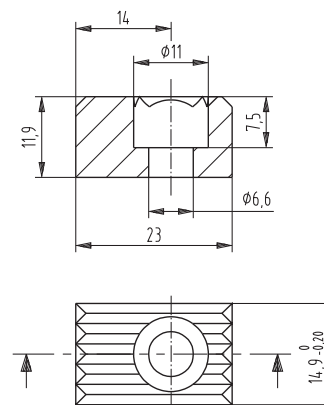
8JZ-001-1



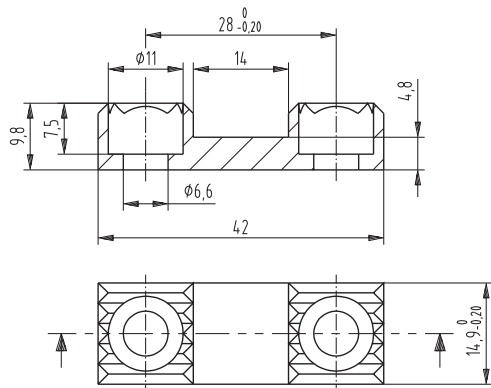
8JZ-003-1



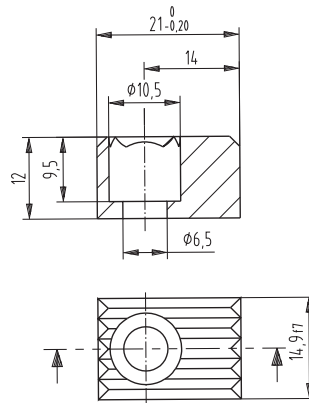
8JZ-004-1



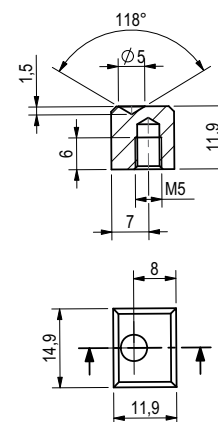
8JZ-005-1



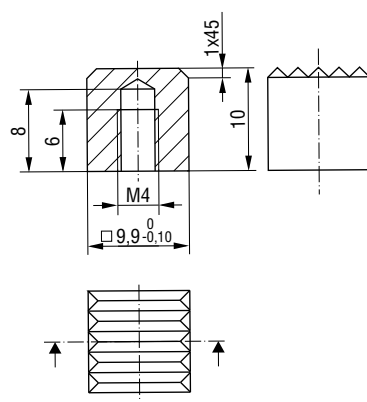
8JZ-014-3



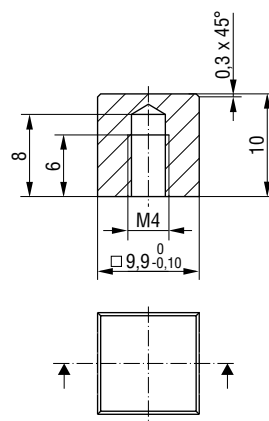
8JZ-025-1



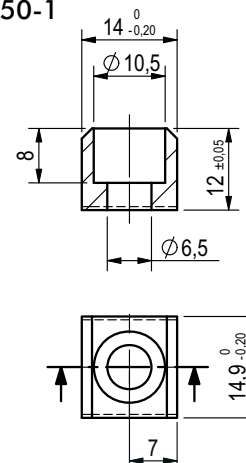
8JZ-027-1



8JZ-028-1



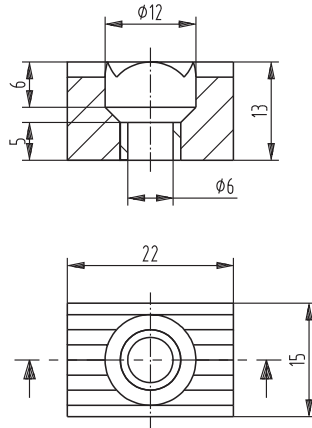
8JZ-050-1



Plastic Gripper Teeth

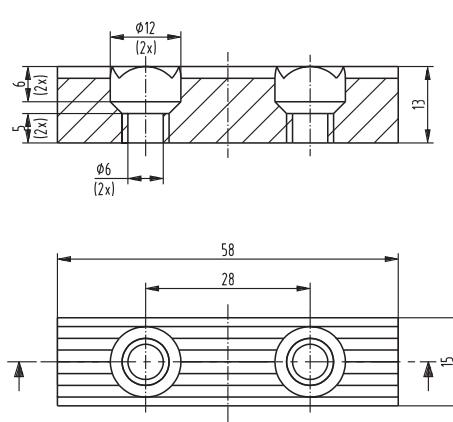
8JZ-021-1

90 Shore



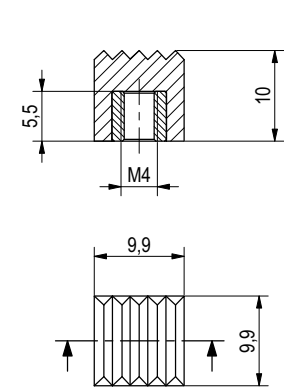
8JZ-023-1

90 Shore



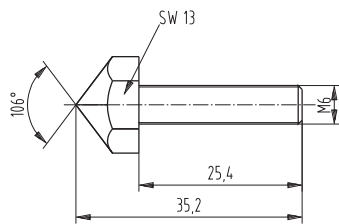
8JZ-045-1

90 Shore

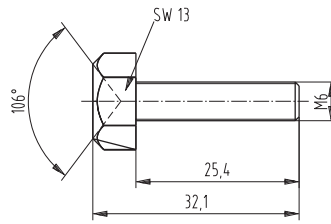


Gripper Points

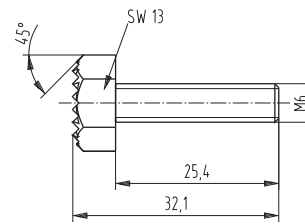
8MJ-1001-1



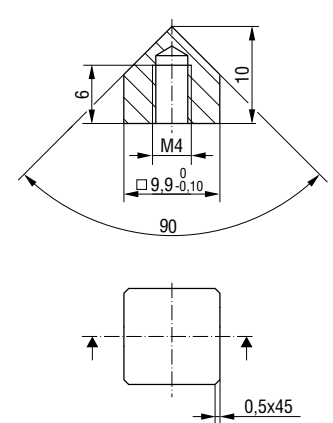
8MJ-1002-1



8MJ-1003-1

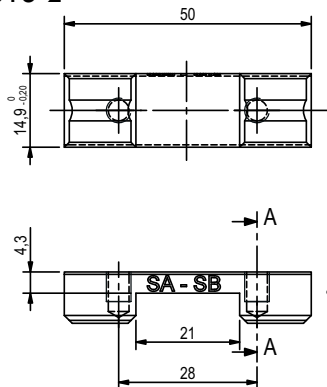


8JZ-029-1

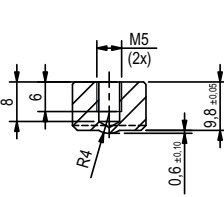


Crown Teeth

8JZ-016-2

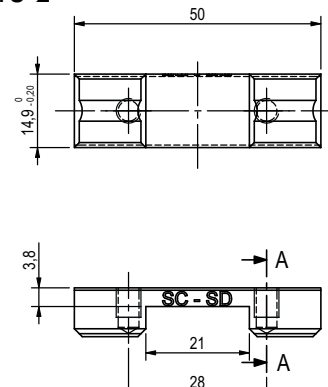


A - A

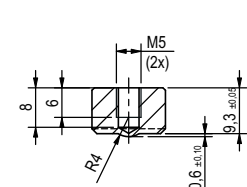


For material thickness 0,5 - 1,0 mm

8JZ-018-2



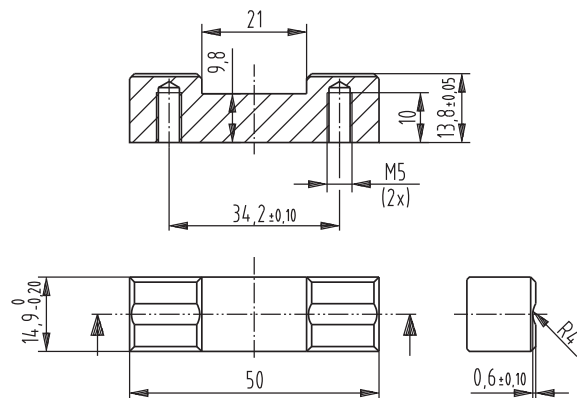
A - A



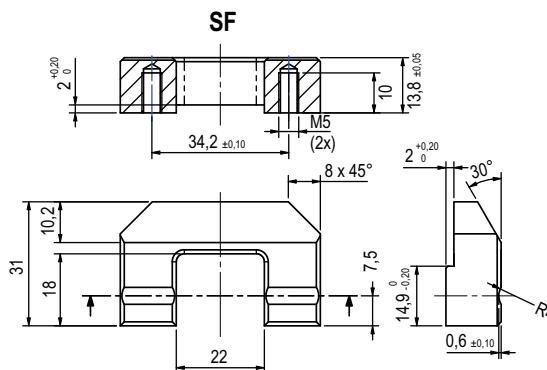
For material thickness 1,0 - 1,5 mm

Crown Teeth

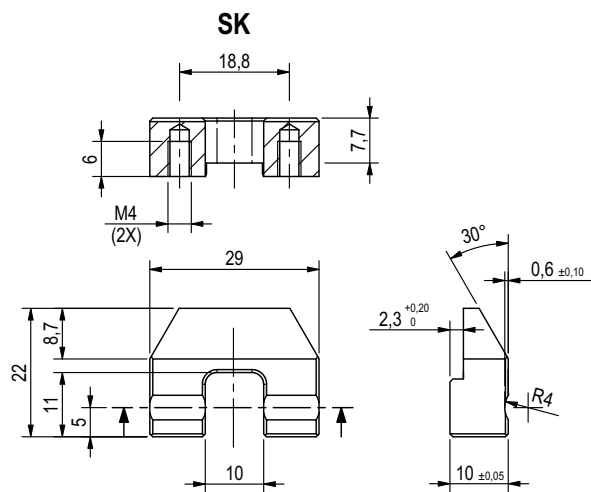
8JZ-019-1



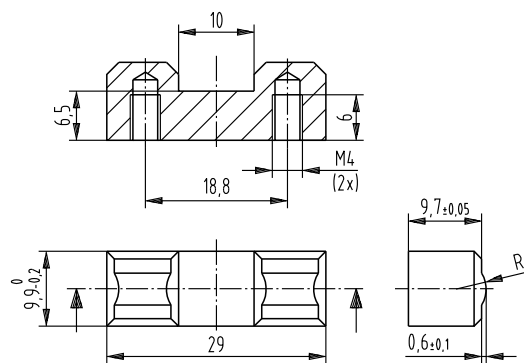
8JZ-020-3



8JZ-036-2

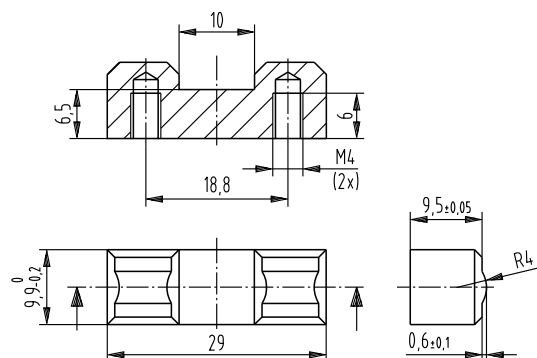


8JZ-037-1



For material thickness 0,5 - 0,8 mm

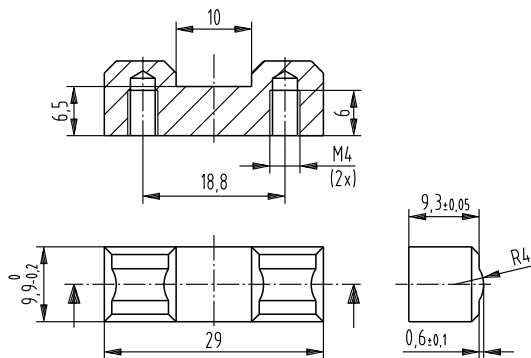
8JZ-038-1



For material thickness 0,9 - 1,2 mm

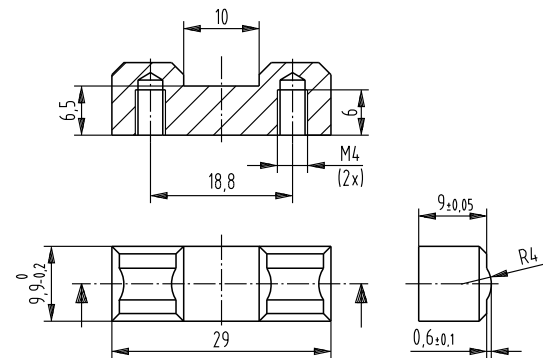
Crown Teeth

8JZ-039-1



For material thickness 1,3 - 1,6 mm

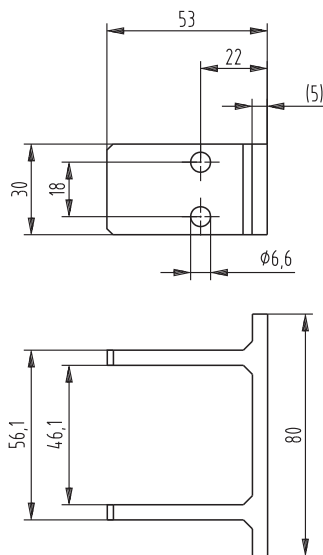
8JZ-040-1



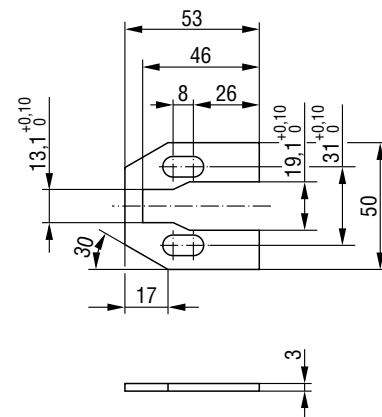
For material thickness 1,7 - 2,1 mm

Adapter/Limit Stops

8MA-006-1

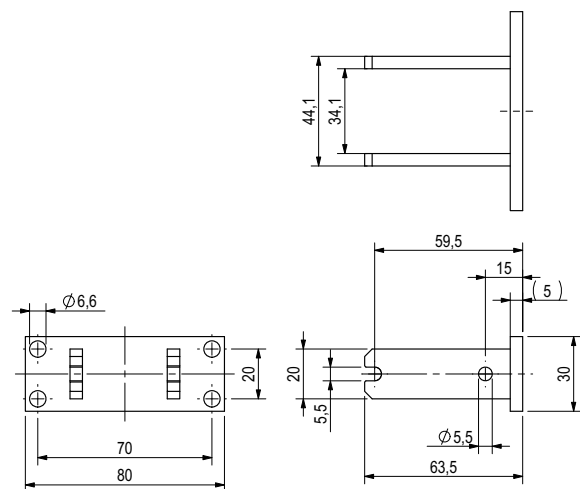


8MH-046-1

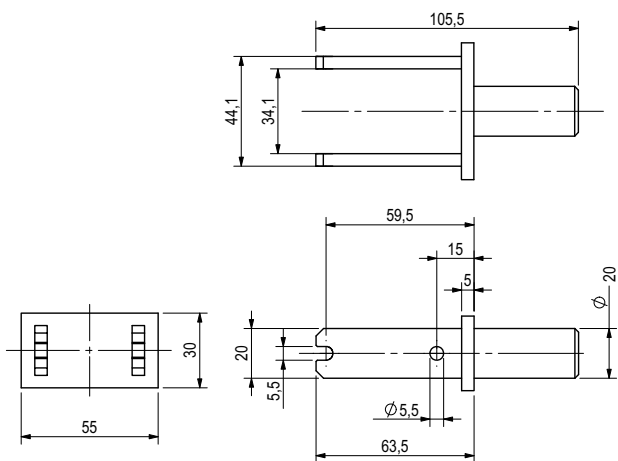


Adapter/Limit Stops

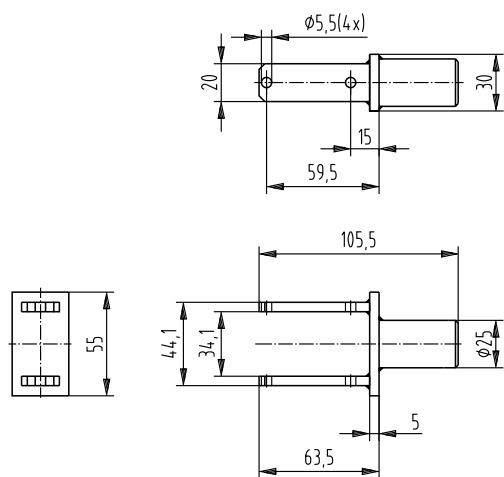
8MA-147-1



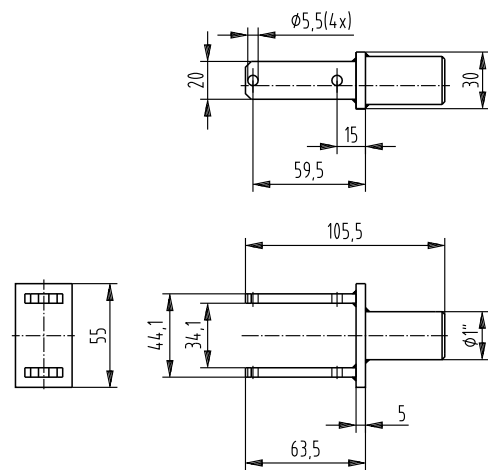
8MA-165-1



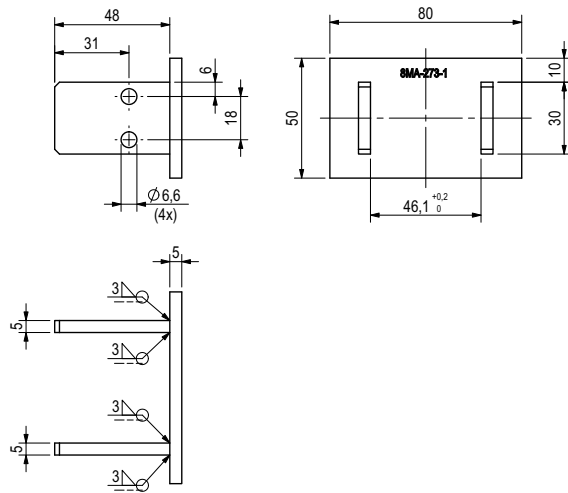
8MA-166-1



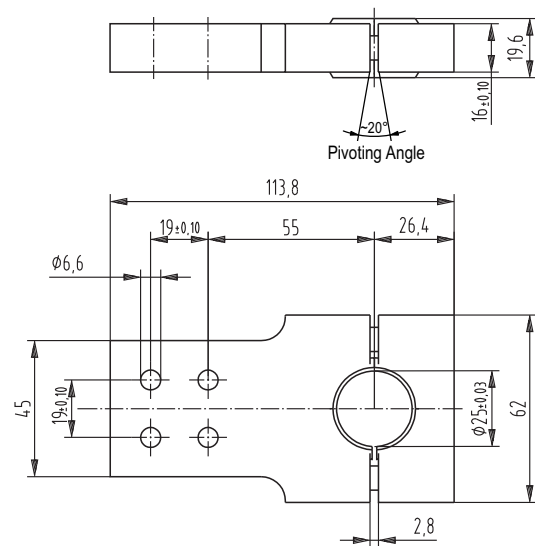
8MA-168-1



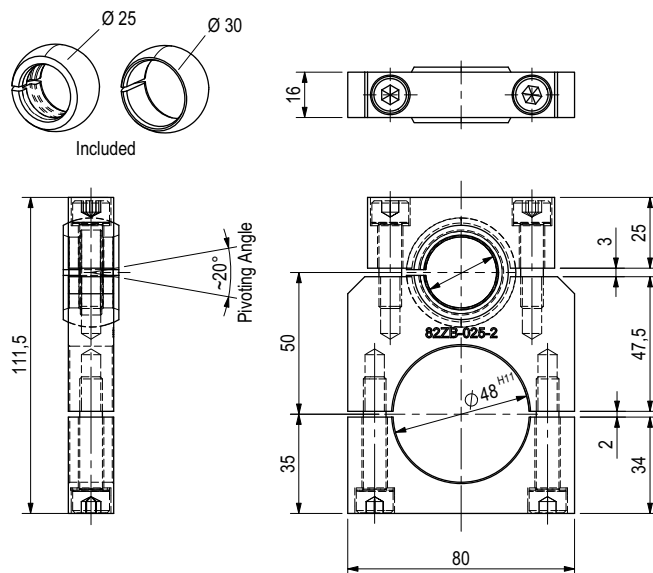
8MA-273-1



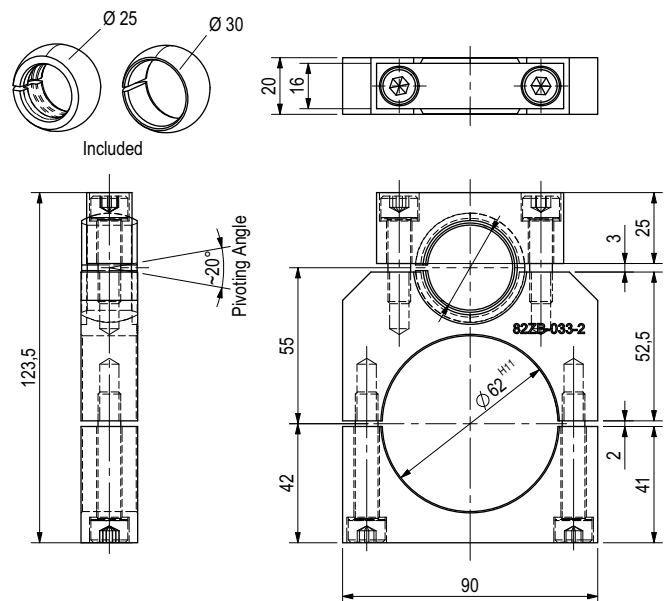
82ZB-007-1



82ZB-025-2

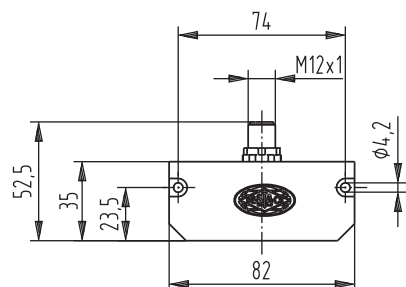


82ZB-033-2

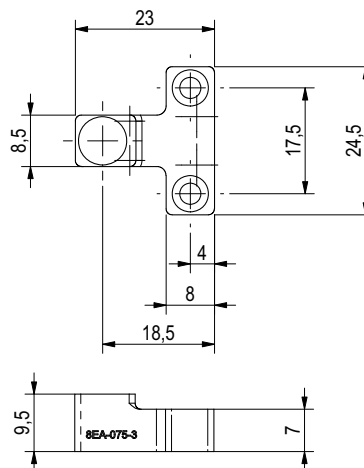


Sensors

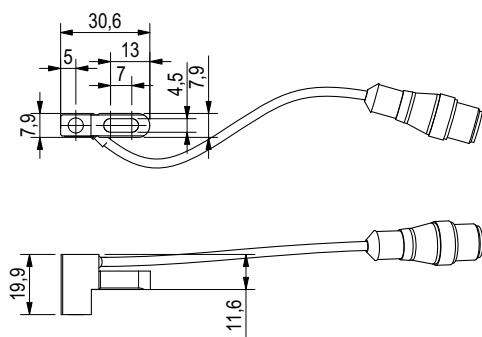
8EA-022-4 (only for opening angle 76°)



8EA-075-2/3

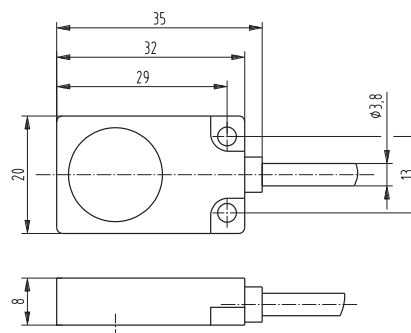


8EA-087-1



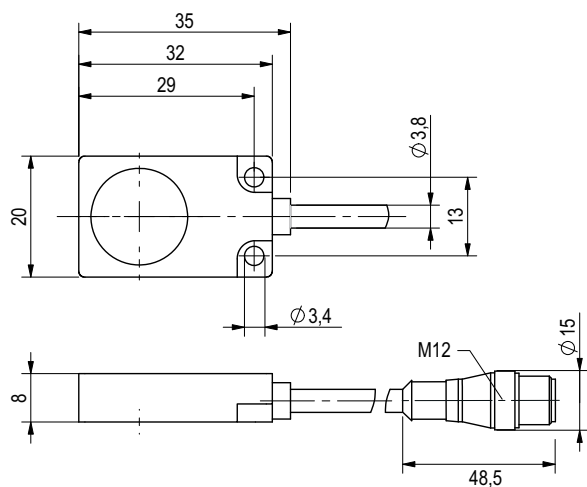
8EA-092-1

Switching distance 7 mm

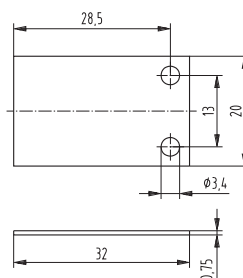


8EA-092-2

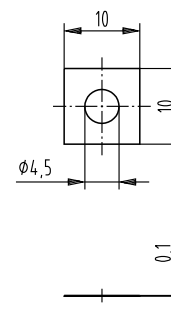
Switching distance 7 mm



8MB-003-1



8SB-039-1



[illegible]



17.60

Modular Gripping Products

GR84 Modular Mini Clamp

Ordering Information

MODEL

GR84

SERIES

15

CYLINDER

BE

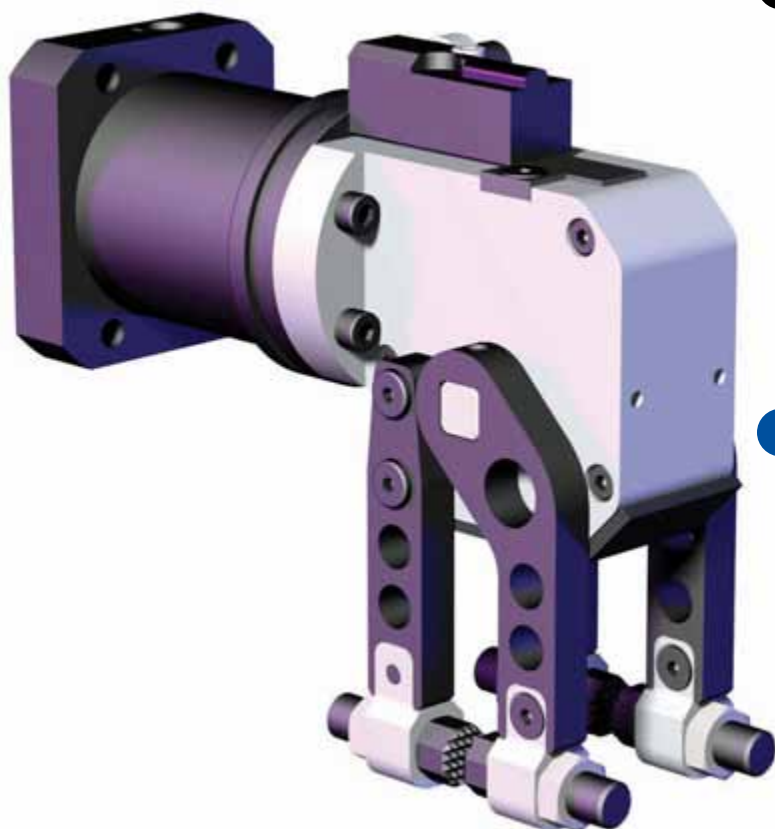
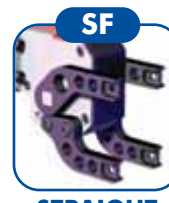
JAW ARM

DD

JAW OPTIONS

9S9

PATENT# 6,619,182

**JAW ARM OPTION****DOUBLE
ARM****JAW ARRANGEMENT & OPENING****STEP 1** 9S X **JAW ARRANGEMENT****90° GRIP
ADJ. FLANGE****90° GRIP
FLANGE****90° GRIP
STANDARD****STRAIGHT
ADJ. FLANGE****STRAIGHT
FLANGE****STRAIGHT
STANDARD****CYLINDER TYPE & PORTING****STEP 1** B E **CYLINDER TYPE****FLANGE
BASE****ROUND
CYLINDER****STEP 2** B E **CYLINDER PORTS****E** **ENGLISH** (1/8 NPT)**M** **METRIC** (1/8 G)**STEP 2** 9S 9 **ACTIVE JAW OPENING****30° PRESET****60° PRESET****90° PRESET**

GR84 Modular Mini Clamp Ordering Information

INSERTS

QQSS —

SENSOR

A1

SENSING MOUNTS

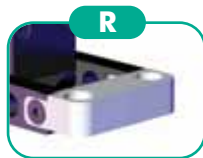
XX

GUARDS

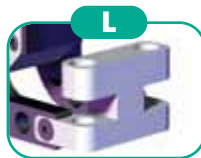
01

JAW BLOCK & INSERT OPTIONS

STEP 1 **Q Q S S** ACTIVE JAW BLOCK OPTION



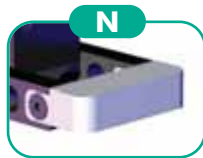
REGULAR BLOCK



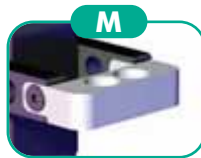
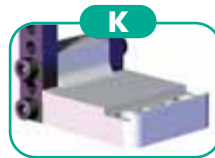
FLANGE BLOCK



(2) SINGLE BLOCKS



BLANK BLOCK


" B " INSERT JAW
(BLOCK INSERTS ONLY)

ADJUSTABLE JAW
(9A & SA FIXED JAW ONLY)

STEP 2 **Q Q S S** FIXED JAW BLOCK OPTION

STEP 3 **Q Q S S** ACTIVE JAW INSERT OPTION



POINT



CUP



URETHANE



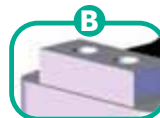
SERRATED


SELF-ADJUSTING
SERRATED


NONE



BLANK



*BLOCK

(N) = NON-STANDARD

STEP 4 **Q Q S S** FIXED JAW INSERT OPTION

OR **M M B S** "B" BLOCK INSERT OPTIONS

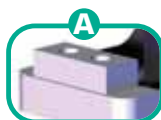
*(ACTIVE AND FIXED JAWS USE COMMON INSERTS)



SERRATED



URETHANE



ALUMINUM

(N) = NON-STANDARD

(SENSING MOUNTS CAN NOT BE USED WITH (B) BLOCK OPTION INSERTS)

SENSOR OPTIONS

(SEE PAGE 67 FOR SENSOR SPECIFICATIONS)

A1 = (TURCK) VDC

SENSOR MOUNTS



Ø18mm SENSOR



Ø12mm SENSOR

XX = NO SENSOR MOUNTS

GUARD OPTIONS



FACE GUARD

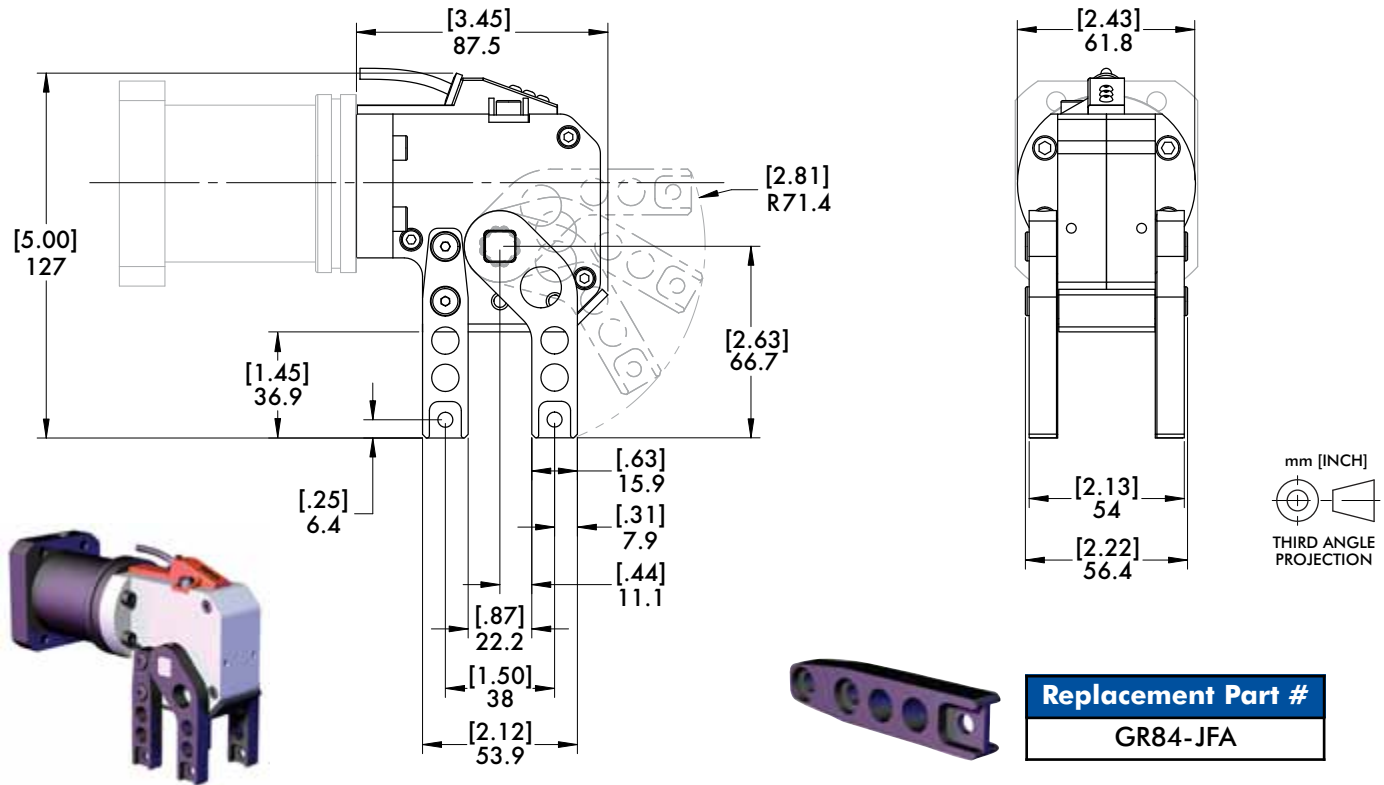


FACE + SKID GUARD

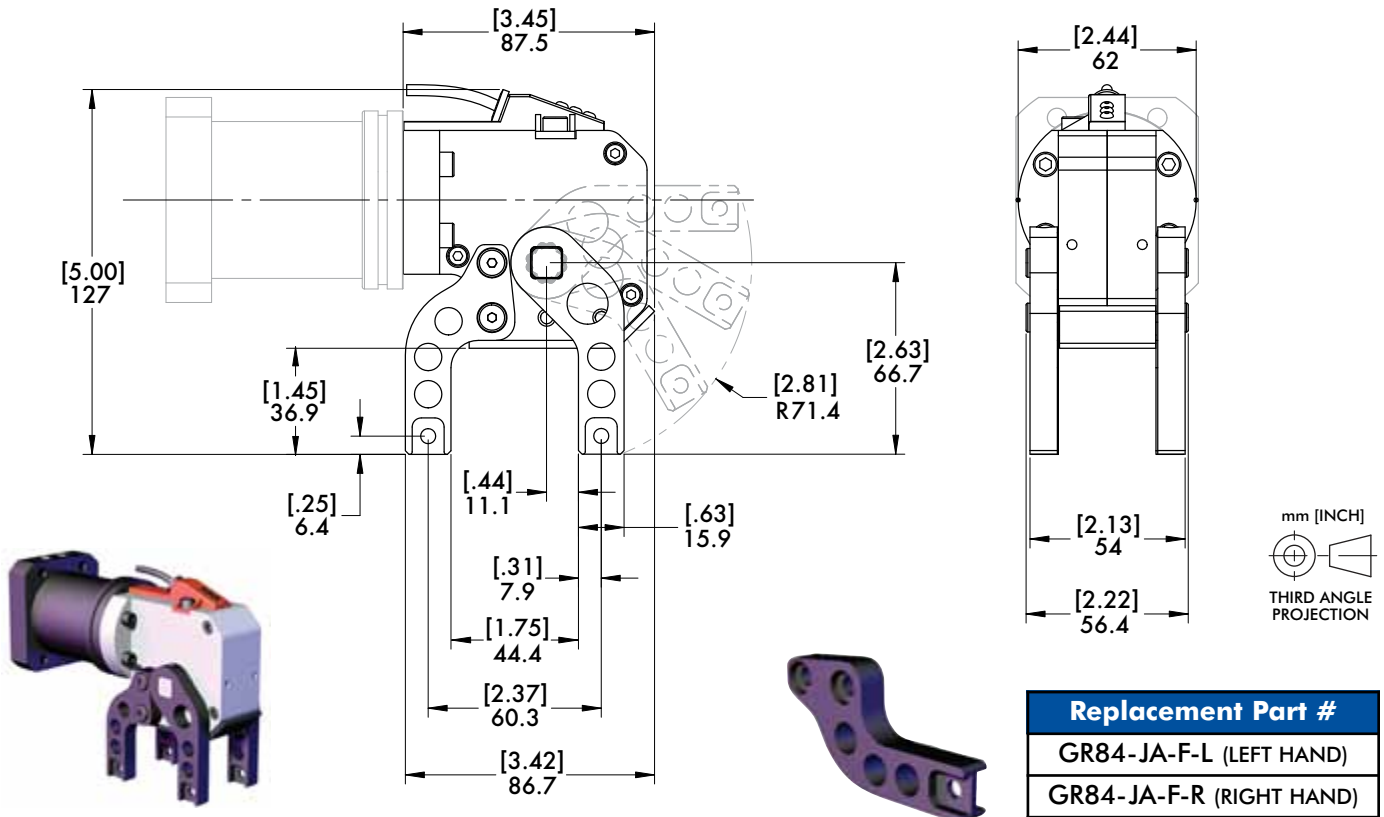
XX = NO FACE GUARD

GR84 Modular Mini Clamp

"9Sx" 90° Jaw Arrangement - Standard Fixed Jaw

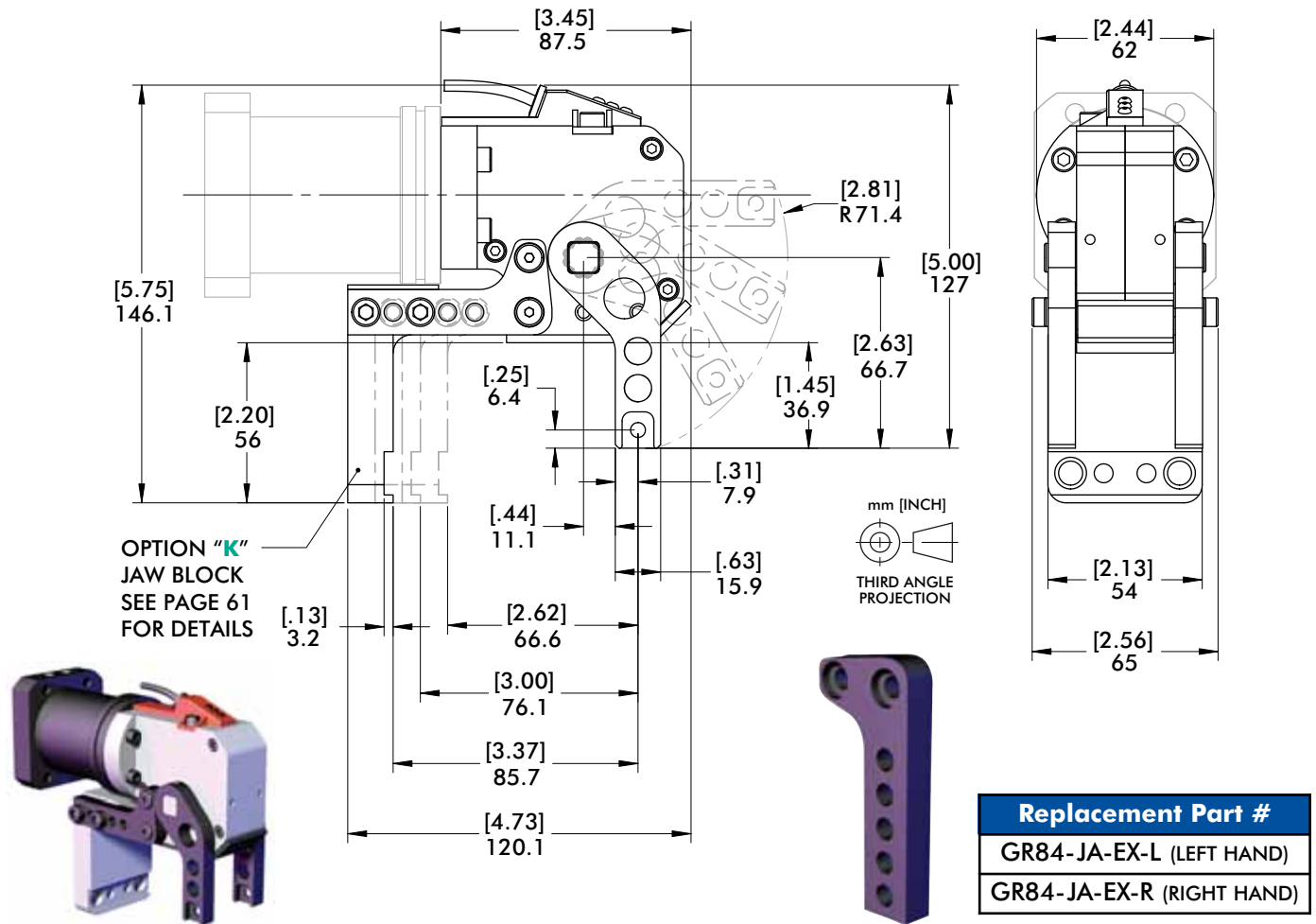


"9Fx" 90° Jaw Arrangement - Flange Fixed Jaw

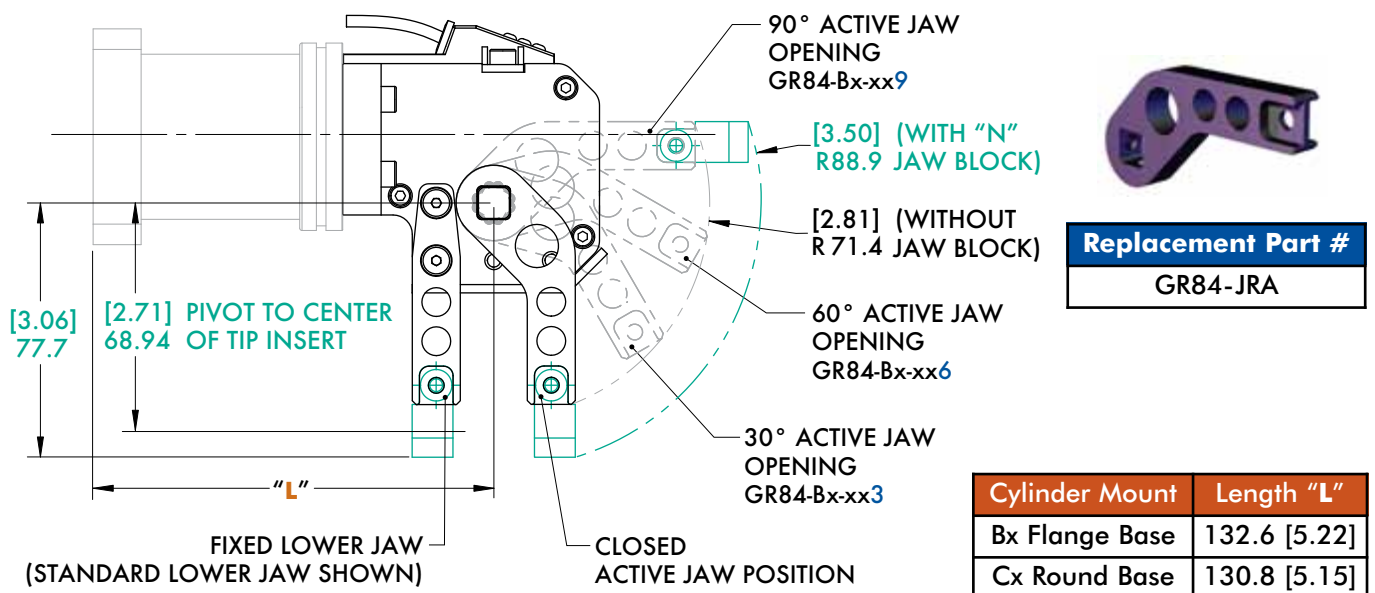


GR84 Modular Mini Clamp

"9Ax" 90° Jaw Arrangement - Adjustable Fixed Jaw

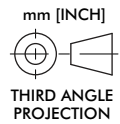
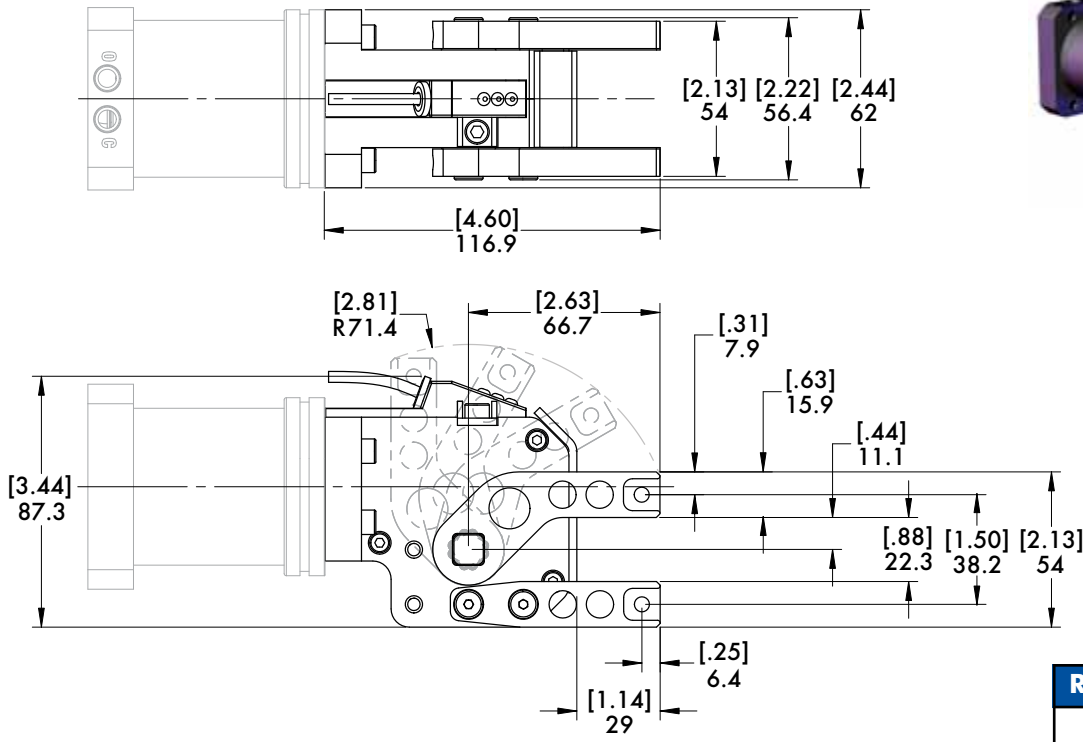


"xx3", "xx6", "xx9" 90° Jaw Arrangement - Preset Active Jaw Opening

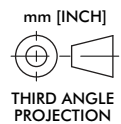
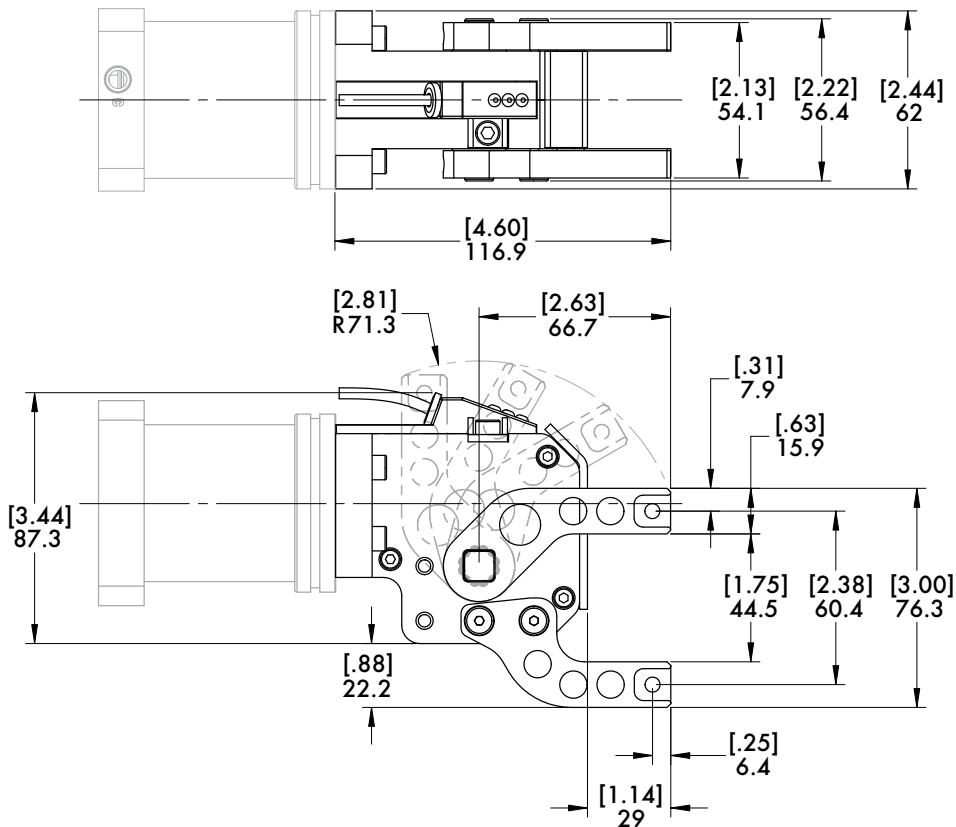


GR84 Modular Mini Clamp

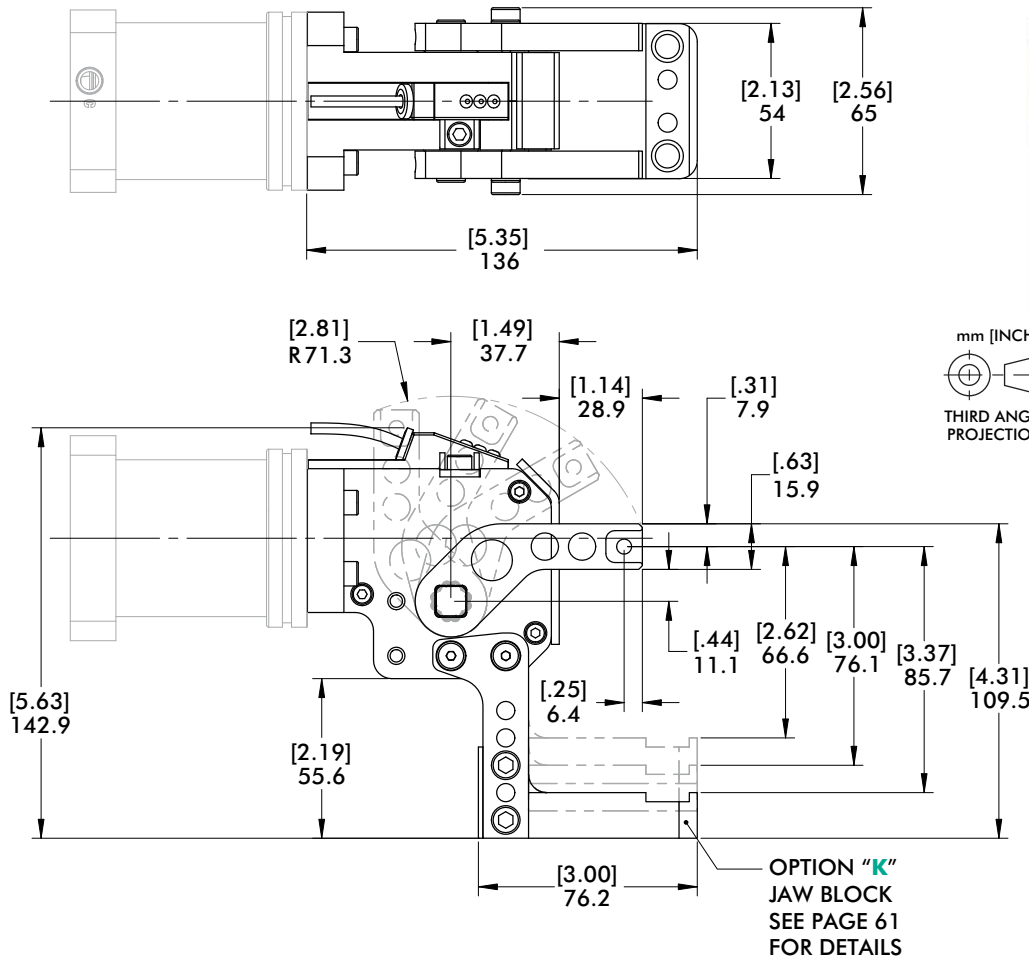
"SSx" Straight Jaw Arrangement - Standard Fixed Jaw



"SFx" Straight Jaw Arrangement - Flange Fixed Jaw



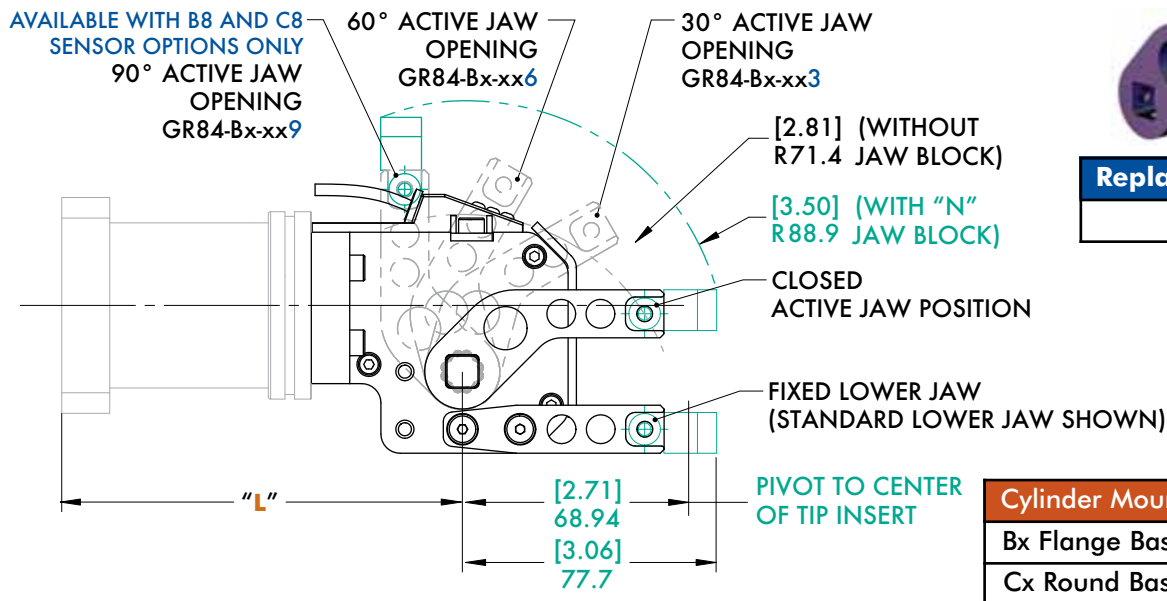
GR84 Modular Mini Clamp "Sax" Straight Jaw Arrangement - Adjustable Fixed Jaw



Replacement Part

GR84-JA-EX-L (LEFT HAND)
GR84-JA-EX-R (RIGHT HAND)

"xx3", "xx6", "xx9" Straight Jaw Arrangement - Preset Active Jaw Opening



Replacement Part

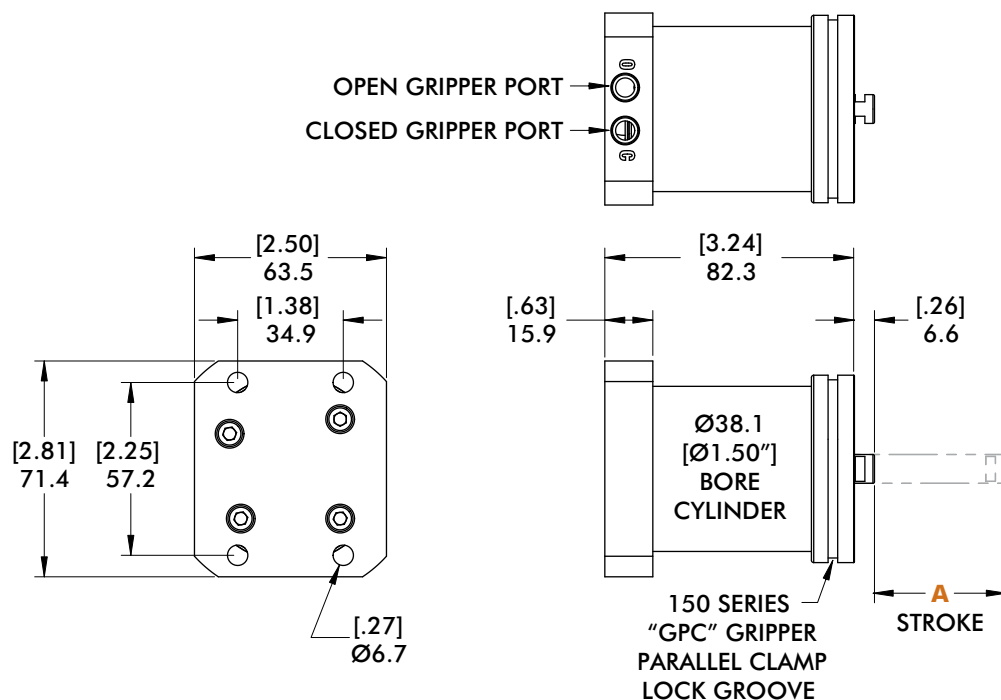
GR84-JRA

Cylinder Mount	Length "L"
Bx Flange Base	132.6 [5.22]
Cx Round Base	130.8 [5.15]

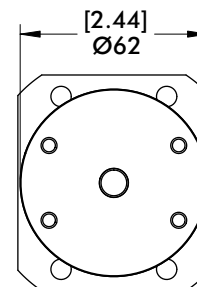


GR84 Modular Mini Clamp

"Bx" Flange Base Cylinder



Replacement Part #
GR84-CYL-B

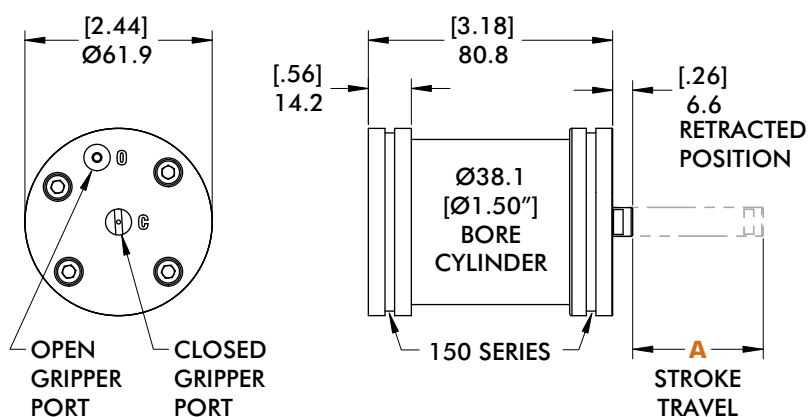


CYLINDER PORTS
E = 1/8" NPT (ENGLISH)
M = 1/8" G (METRIC)

PATENT# 6,619,182

JAW OPENING	30°	60°	90°
STROKE "A"	21.3 [.84]	32.8 [1.29]	42.9 [1.69]

"Cx" Round Base Cylinder



Replacement Part #
GR84-CYL-C

CYLINDER PORTS
E = 1/8" NPT (ENGLISH)
M = 1/8" G (METRIC)

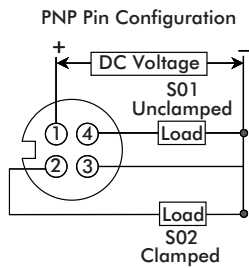
PATENT# 6,619,182

JAW OPENING	30°	60°	90°
STROKE "A"	21.3 [.84]	32.8 [1.29]	42.9 [1.69]

GR84 Modular Mini Clamp

Technical Information

Wiring diagram of electrical sensing system



"A1"

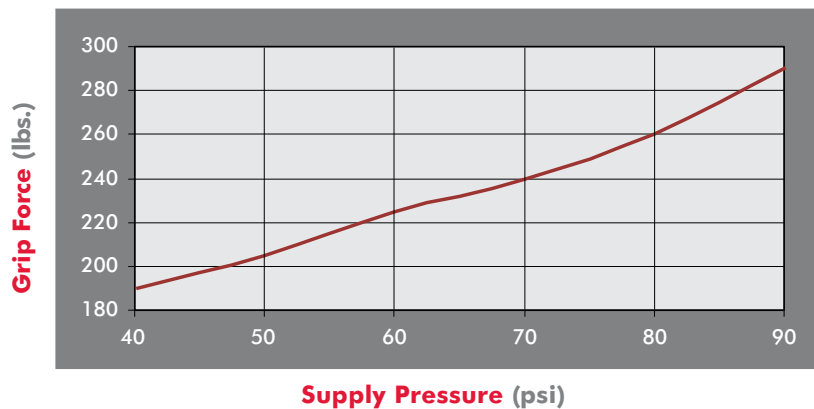


Open/Closed Sensor Options:

"A1" Replacement Part# "8EA-054-1" + "GR84-SB" 10...30 VDC 150mA, PNP, 4-Pin, M12, Eurofast
(Fasteners required for "A1" replacement: (2x) M5x10-912-ZN, (1x) M4x20-7984)

Specifications

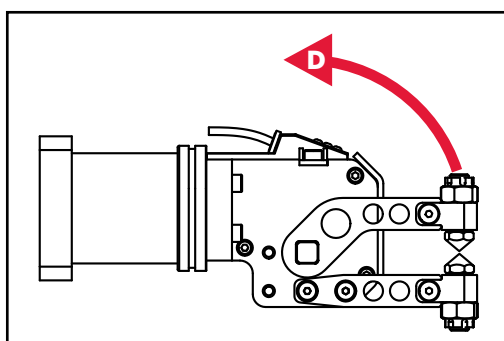
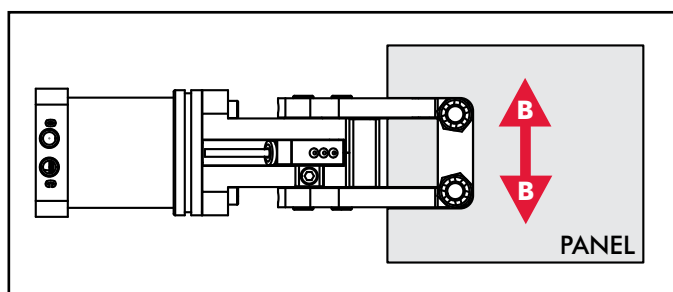
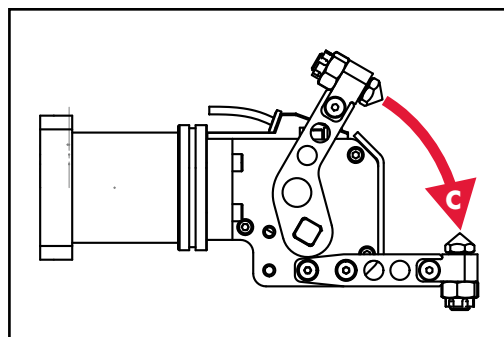
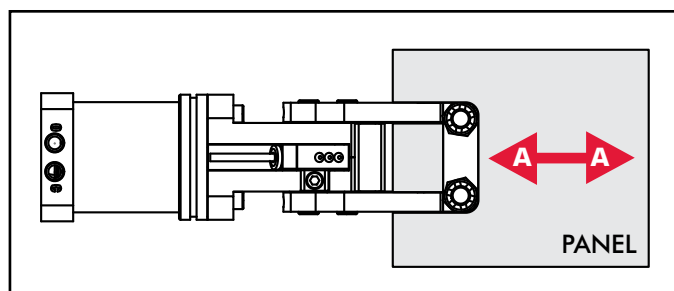
Weight:1.5 kg [3.2 lb]
Grip Range (Standard and Flange with Jaw Inserts)0mm - 8mm [0 to 0.31"]
Arm Position Tolerance: $\pm 0.33^\circ$
Arm Lateral Tolerance: ± 0.3 mm [0.01]
Cycle Speed @ 60 psi:0.6 Sec (Open/Closed)



GR84 Modular Mini Clamp

Technical Information

The GR84 Mini-Clamp utilizes a self-locking linkage system. If the air is lost while fully closed, the mini-clamp will continue to hold the part. The amount of air required to achieve the high gripping forces is greater than pressure to release or open the mini-clamp. If there is a slight drop of pressure during the opening cycle, the mini-clamp will still release the part. Other self locking systems can jam and require more air to release the part than it would need to grip it.



Single Jaw Arm Styles

Pressure	"A"	"B"	"C"	"D"
2.8 bar [40 psi]	31.8 kg [70 lb]	31.8 kg [70 lb]	86.2 kg [190 lb]	294.8 kg [650 lb]
3.4 bar [50 psi]	34.0 kg [75 lb]	34.0 kg [75 lb]	93.0 kg [205 lb]	294.8 kg [650 lb]
4.1 bar [60 psi]	36.3 kg [80 lb]	36.3 kg [80 lb]	102.1 kg [225 lb]	294.8 kg [650 lb]
4.8 bar [70 psi]	38.6 kg [85 lb]	38.6 kg [85 lb]	108.9 kg [240 lb]	294.8 kg [650 lb]
5.5 bar [80 psi]	40.8 kg [90 lb]	40.8 kg [90 lb]	117.9 kg [260 lb]	294.8 kg [650 lb]
6.2 bar [90 psi]	43.1 kg [95 lb]	43.1 kg [95 lb]	131.5 kg [290 lb]	294.8 kg [650 lb]

Double Jaw Arm Styles

Pressure	"A"	"B"	"C"	"D"
2.8 bar [40 psi]	34.0 kg [75 lb]	34.0 kg [75 lb]	86.2 kg [190 lb]	589.4 kg [1300 lb]
3.4 bar [50 psi]	36.3 kg [80 lb]	36.3 kg [80 lb]	93.0 kg [205 lb]	589.4 kg [1300 lb]
4.1 bar [60 psi]	38.6 kg [85 lb]	38.6 kg [85 lb]	102.1 kg [225 lb]	589.4 kg [1300 lb]
4.8 bar [70 psi]	40.8 kg [90 lb]	40.8 kg [90 lb]	108.9 kg [240 lb]	589.4 kg [1300 lb]
5.5 bar [80 psi]	43.1 kg [95 lb]	43.1 kg [95 lb]	117.9 kg [260 lb]	589.4 kg [1300 lb]
6.2 bar [90 psi]	45.4 kg [100 lb]	45.4 kg [100 lb]	131.5 kg [290 lb]	589.4 kg [1300 lb]

[illegible]