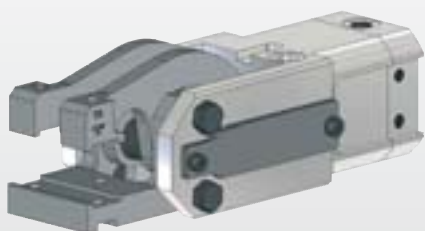


NEW

84A3-3 Cam Type Gripper

To fulfill more requirements from experience we modified the well known and approved Version 1



page **19.2**

NEW

84A2-19/84A2-V9

New requirements for movable arm are fulfilled for use in press shops



page **19.26**

page **19.37**

The advance in press automation creates the necessity to grip, place, remove and transport components in ever-shortening time cycles.

DE-STA-CO has developed grippers in various sizes and ratings to address the specific demands in this sector.

Our variety of gripper series is supplemented with add-on gripper teeth and adaptors that allow customers to quickly and safely attach the grippers to their machinery.

The grippers are designed with a view to perfect gripping and long life cycles. They are driven by compressed air.

It goes without saying that DE-STA-CO's grippers not only answer the needs of the sheet processing industry such as automotive and domestic appliances production but also those of the wood processing industry, when it comes to conveying boards, or the textile industry where they stretch and hold carpets, fitted carpets and fleece materials. Many other applications can be thought of.

The grippers supplied by DE-STA-CO are configured for partly or separately sensing components and/or for sensing positions.

	Model no.	Clamping force	Page
	84A3-3	570 – 1500 N	19.2
	84A2-1	270 – 580 N	19.17
	84A2-V	270 – 580 N	19.28
	84B3-1	24 – 90 N	19.38
	84C2-1	100 N	19.42

	Model no.	Clamping force	Page
	84D3-1	600 N	19.44
	84E3-1	240 N	19.46
	84G3-1	240 N	19.48
	84F35-1		19.52
	84H3-1		19.53
	84K3-1		19.54

■ Self-locking cam type grippers

Models: **84A3-1.....****Application:**

Gripping, holding, placing, removing and transporting of metal sheets and other parts, mainly in jigs, press-automation and handling systems.

Key areas of application:

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

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

Picture	Model no.	Clamping force at 5 bar [N]	Weight [kg]	opening angle	Opening/Closure time [s]
	84A3-310000000	1500	1,35	76°	0,2
	84A3X310000000	1500	1,35	30°	0,2
	84A3Y310000000	1500	1,35	45°	0,2
	84A3Z310000000	1500	1,35	60°	0,2
	84A3-320000000	950	1,6	76°	0,2
	84A3X320000000	950	1,6	30°	0,2
	84A3Y320000000	950	1,6	45°	0,2
	84A3Z320000000	950	1,6	60°	0,2
	84A3-330000000	750	1,35	76°	0,2
	84A3X330000000	750	1,35	30°	0,2
	84A3Y330000000	750	1,35	45°	0,2
	84A3Z330000000	750	1,35	60°	0,2
	84A3-340000000	1500	1,3	76°	0,2
	84A3X340000000	1500	1,3	30°	0,2
	84A3Y340000000	1500	1,3	45°	0,2
	84A3Z340000000	1500	1,3	60°	0,2
	84A3-350000000	1500	1,25	76°	0,2
	84A3X350000000	1500	1,25	30°	0,2
	84A3Y350000000	1500	1,25	45°	0,2
	84A3Z350000000	1500	1,25	60°	0,2
	84A3-360000000	570	1,55	76°	0,3
	84A3X360000000	570	1,55	30°	0,3
	84A3Y360000000	570	1,55	45°	0,3
	84A3Z360000000	570	1,55	60°	0,3
	84A3-370000000	1800	1,45	76°	0,2
	84A3X370000000	1800	1,45	30°	0,2
	84A3Y370000000	1800	1,45	45°	0,2
	84A3Z370000000	1800	1,45	60°	0,2
	84A3-380000000	1800	1,4	76°	0,2
	84A3X380000000	1800	1,4	30°	0,2
	84A3Y380000000	1800	1,4	45°	0,2
	84A3Z380000000	1800	1,4	60°	0,2
	84A3R330000000	750	1,35	76°	0,2
	84A3S330000000	750	1,35	30°	0,2
	84A3T330000000	750	1,35	45°	0,2
	84A3U330000000	750	1,35	60°	0,2
	84A3-390000000	1500	1,3	76°	0,2
	84A3X390000000	1500	1,3	30°	0,2
	84A3Y390000000	1500	1,3	45°	0,2
	84A3Z390000000	1500	1,3	60°	0,2
	84A3-300000000	1500	1,4	76°	0,2
	84A3X300000000	1500	1,4	30°	0,2
	84A3Y300000000	1500	1,4	45°	0,2
	84A3Z300000000	1500	1,4	60°	0,2

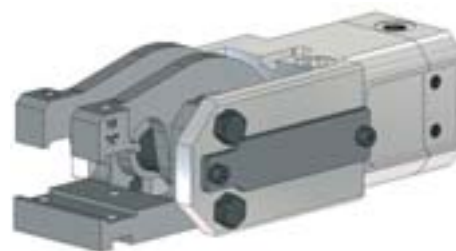
* The values of gripping forces include a safety factor 20%

■ **Model 84A3-310000000**

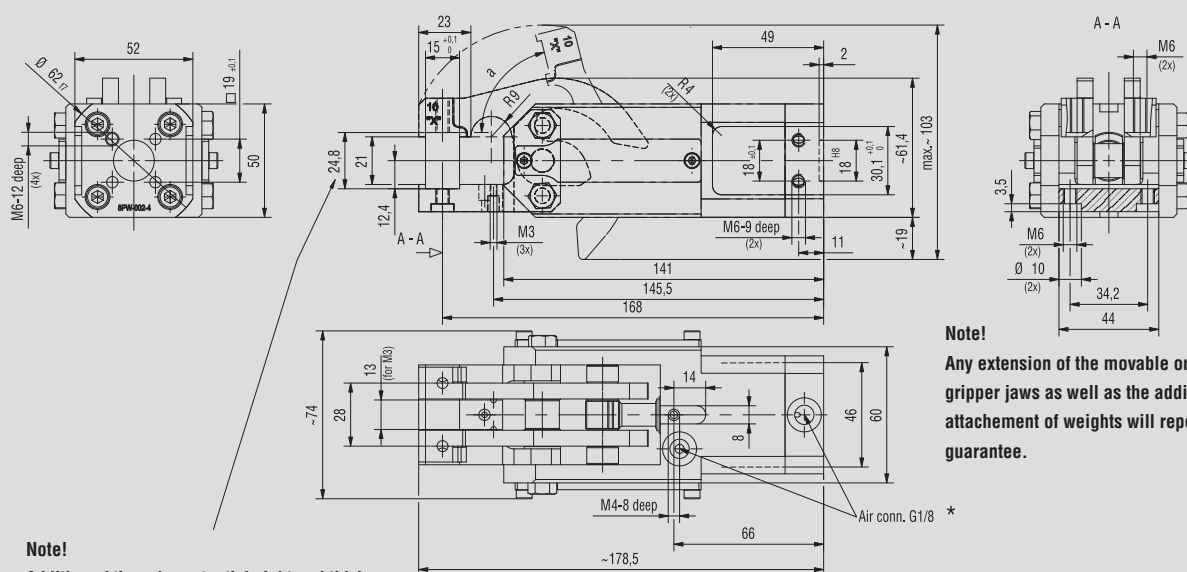
84A3X310000000

84A3Y310000000

84A3Z310000000



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



Note!

Addition of the gripper teeth height and thickness of the clamped plate must be 24,8 mm.

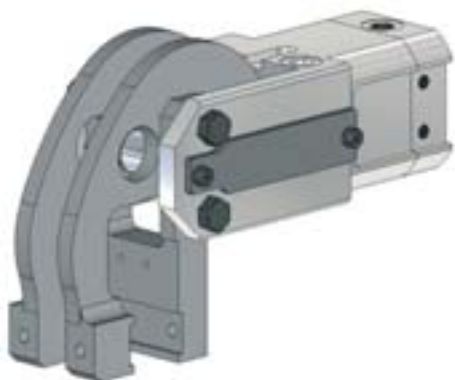
It might be necessary to use shim plates or to grind the gripper teeth.

Note!

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

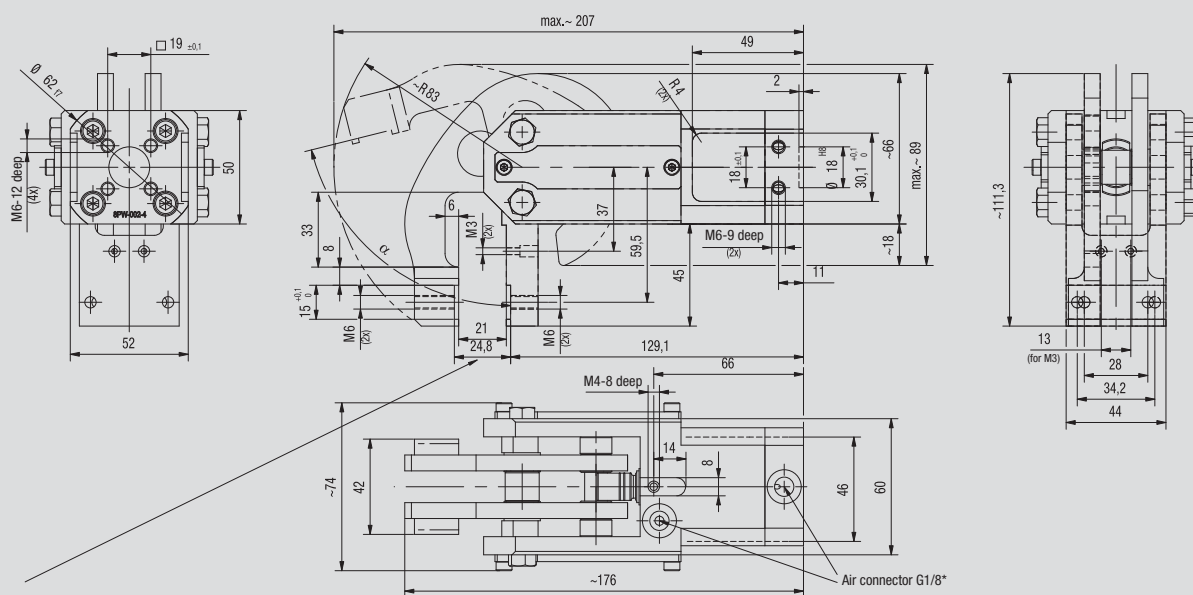
Medium: air, max. 8 bar, operation with oil-free air is permissible.

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



- Model 84A3-320000000
- 84A3X320000000
- 84A3Y320000000
- 84A3Z320000000

Model	Opening angle α
84A3-320000000	76°
84A3X320000000	30°
84A3Y320000000	45°
84A3Z320000000	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. 8 bar, operation with oil-free air is permissible.

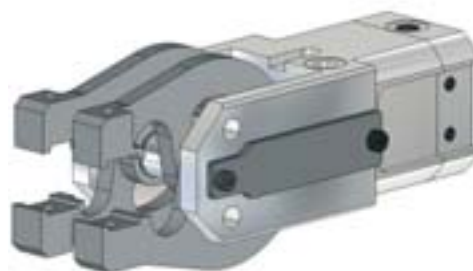
Please order separately accessories such as gripper teeth, sensing and adaptors

■ **Model 84A3-330000000**

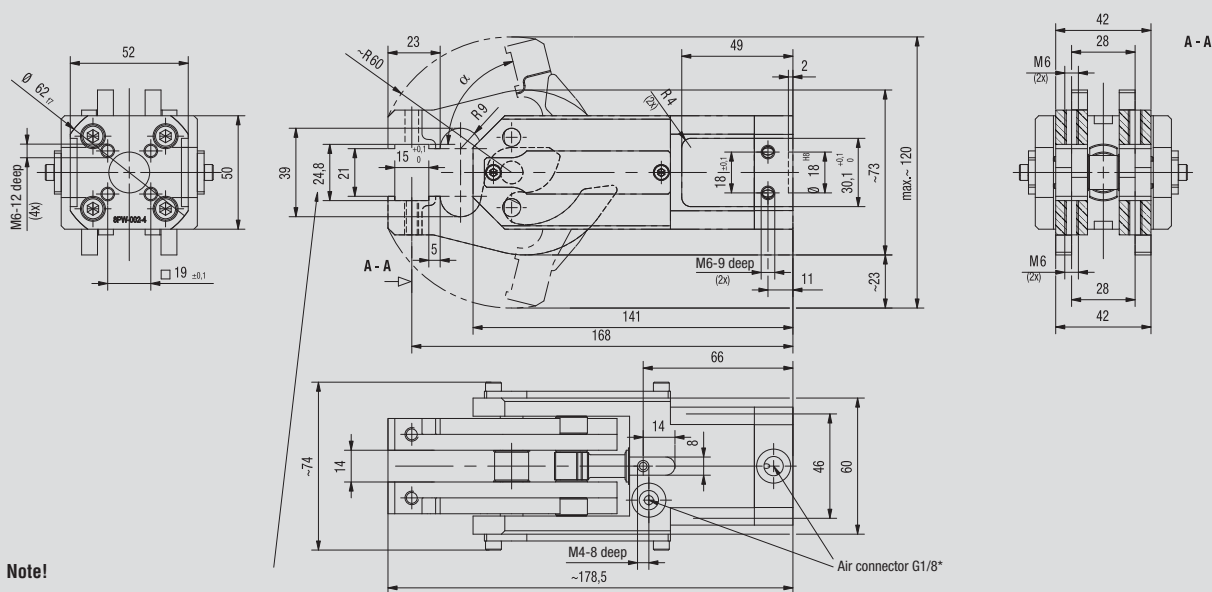
84A3X330000000

84A3Y330000000

84A3Z3300000000



Model	Opening angle α
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.

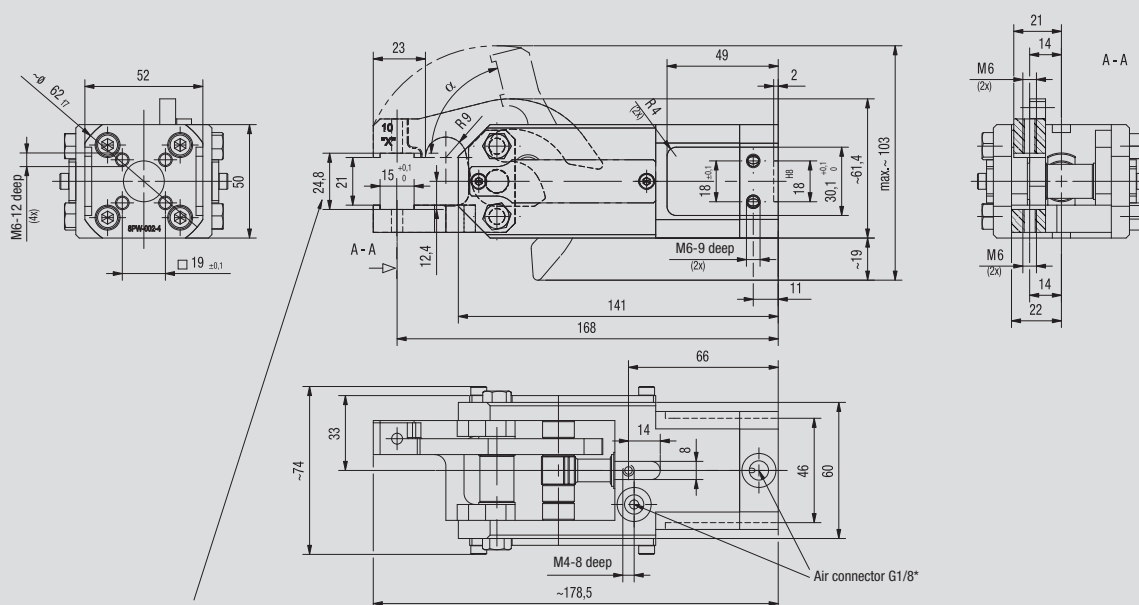
Medium: air, max. 8 bar, operation with oil-free air is permissible.

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



- Model 84A3-340000000
- 84A3X340000000
- 84A3Y340000000
- 84A3Z340000000

Model	Opening angle α
84A3-340000000	76°
84A3X340000000	30°
84A3Y340000000	45°
84A3Z340000000	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. 8 bar, operation with oil-free air is permissible.

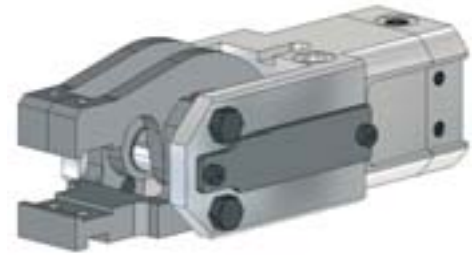
Please order separately accessories such as gripper teeth, sensing and adaptors

NEW

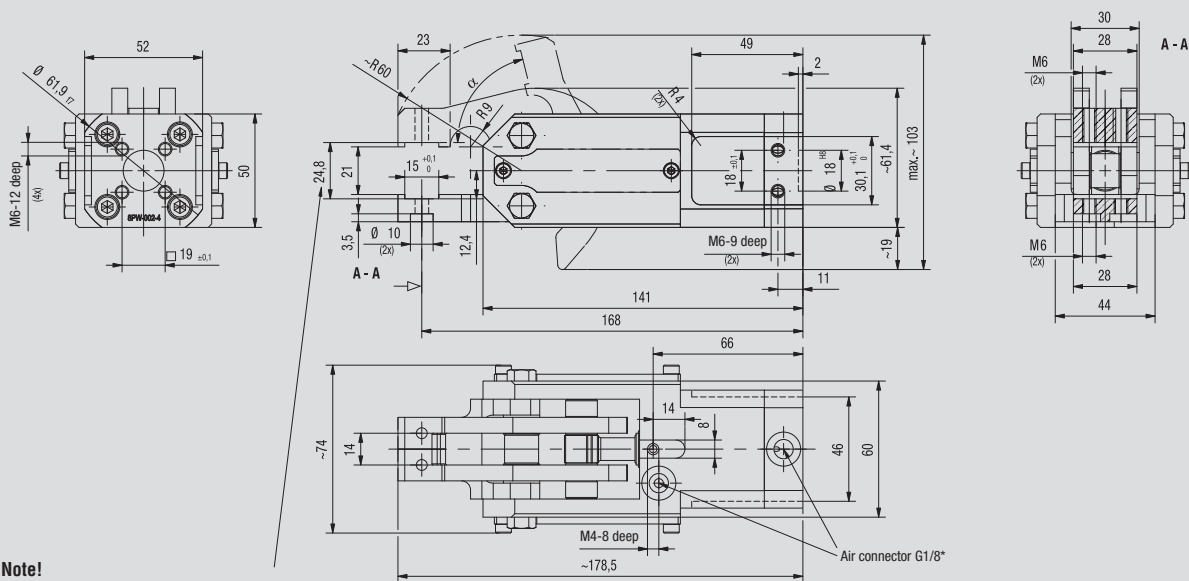
Cam Type Grippers

Cam Type Grippers

- Model 84A3-350000000
- 84A3X350000000
- 84A3Y350000000
- 84A3Z350000000



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



Note!

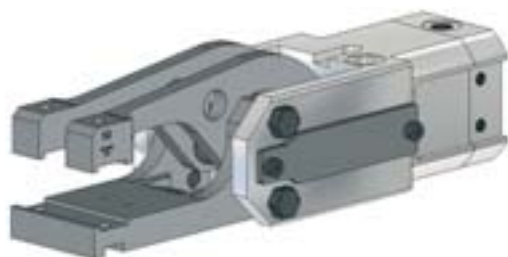
Addition of the gripper teeth height and thickness of the clamped plate must be 24,8 mm. It might be necessary to use shim plates or to grind the gripper teeth.

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. 8 bar, operation with oil-free air is permissible.

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

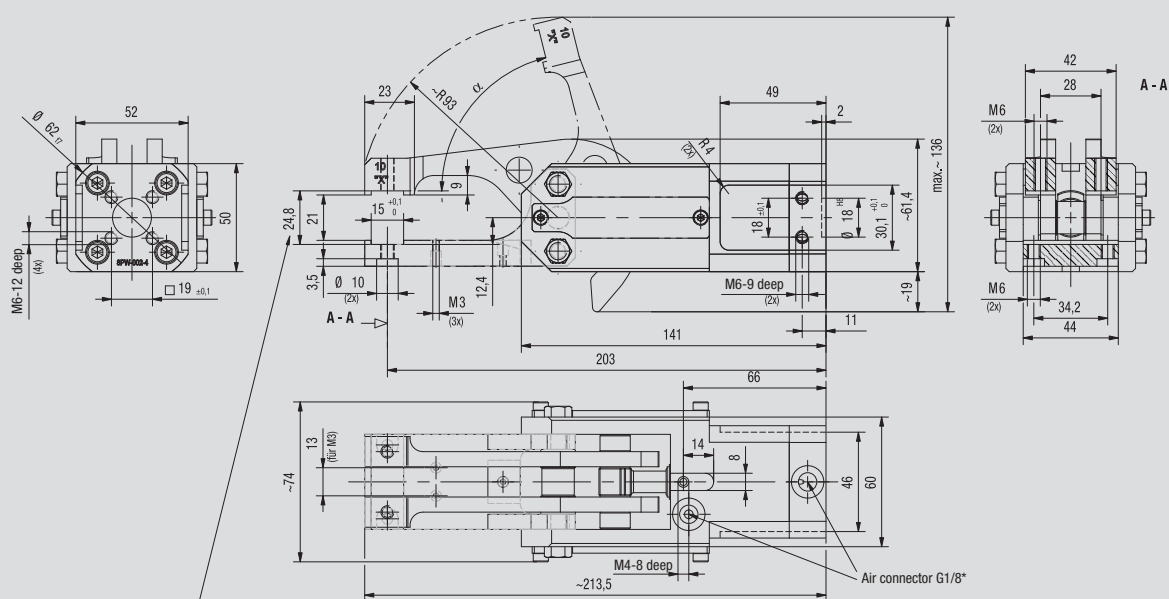


- Model 84A3-360000000
- 84A3X360000000
- 84A3Y360000000
- 84A3Z360000000

Model	Opening angle α
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. 8 bar, operation with oil-free air is permissible.

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

NEW

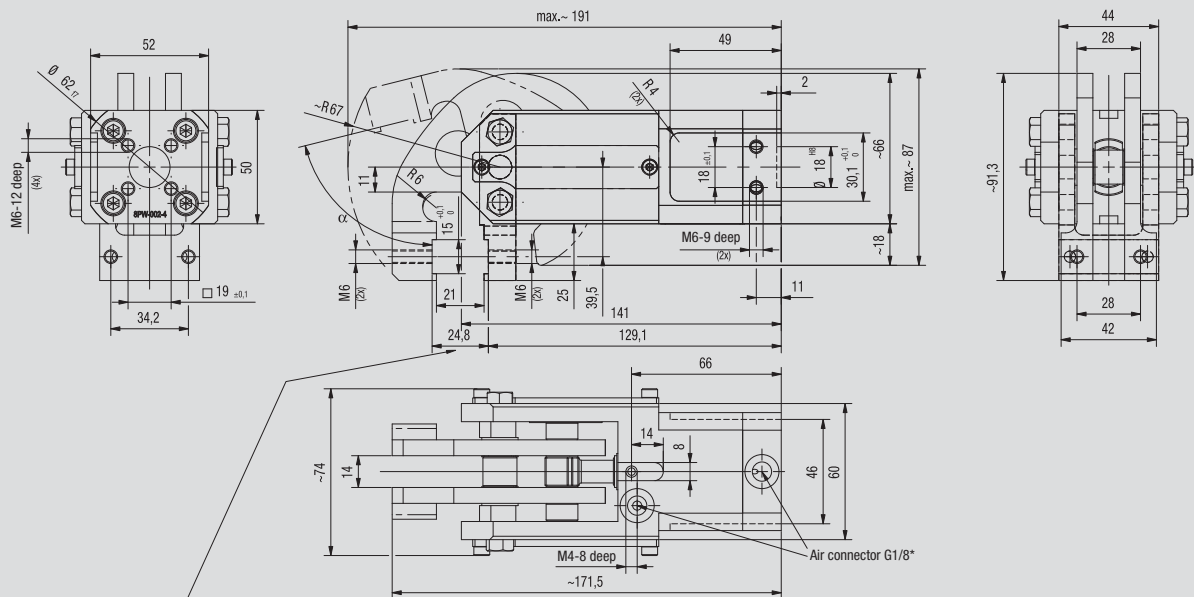
Cam Type Grippers

Cam Type Grippers

- Model 84A3-370000000
- 84A3X370000000
- 84A3Y370000000
- 84A3Z370000000



Model	Opening angle α
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. 8 bar, operation with oil-free air is permissible.

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



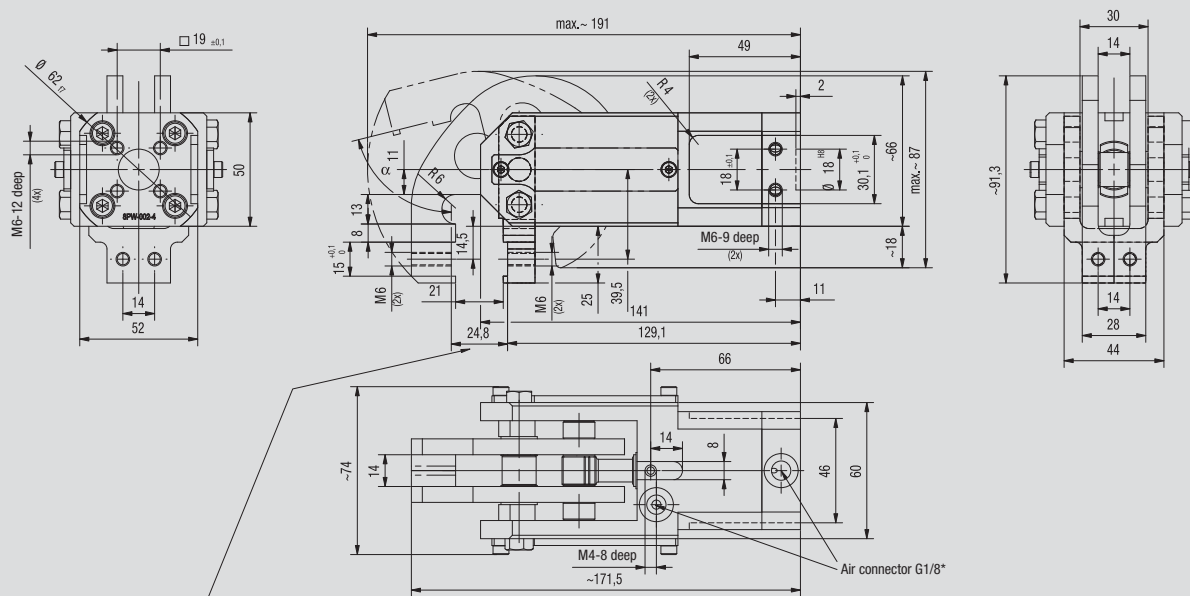
■ **Model 84A3-3800000000**

84A3X380000000

84A3Y380000000

84A3Z3800000000

Model	Opening angle α
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!

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

Medium: air, max. 8 bar, operation with oil-free air is permissible.

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

NEW

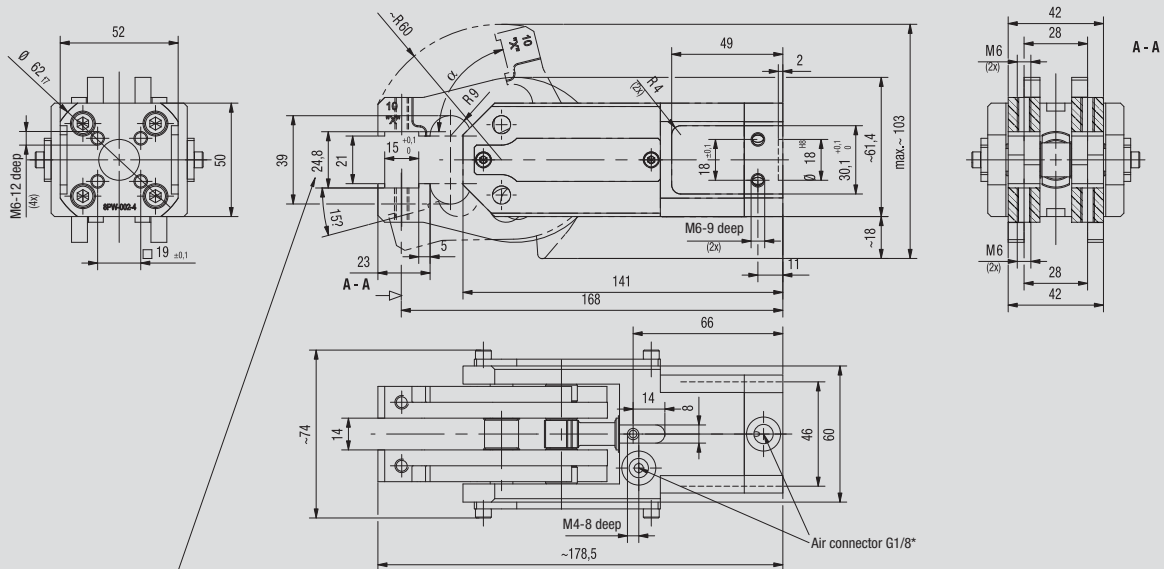
Cam Type Grippers

Cam Type Grippers

- Model 84A3R330000000
- 84A3S330000000
- 84A3T330000000
- 84A3U330000000



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



Note!

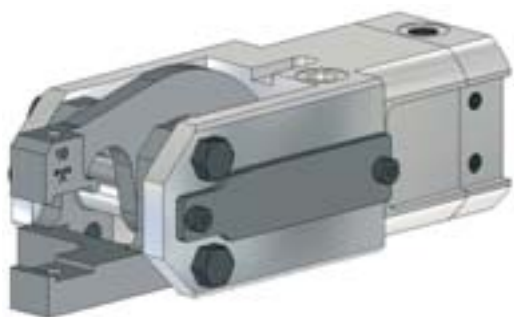
Addition of the gripper teeth height and thickness of the clamped plate must be 24,8 mm.
It might be necessary to use shim plates or to grind the gripper teeth.

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. 8 bar, operation with oil-free air is permissible.

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



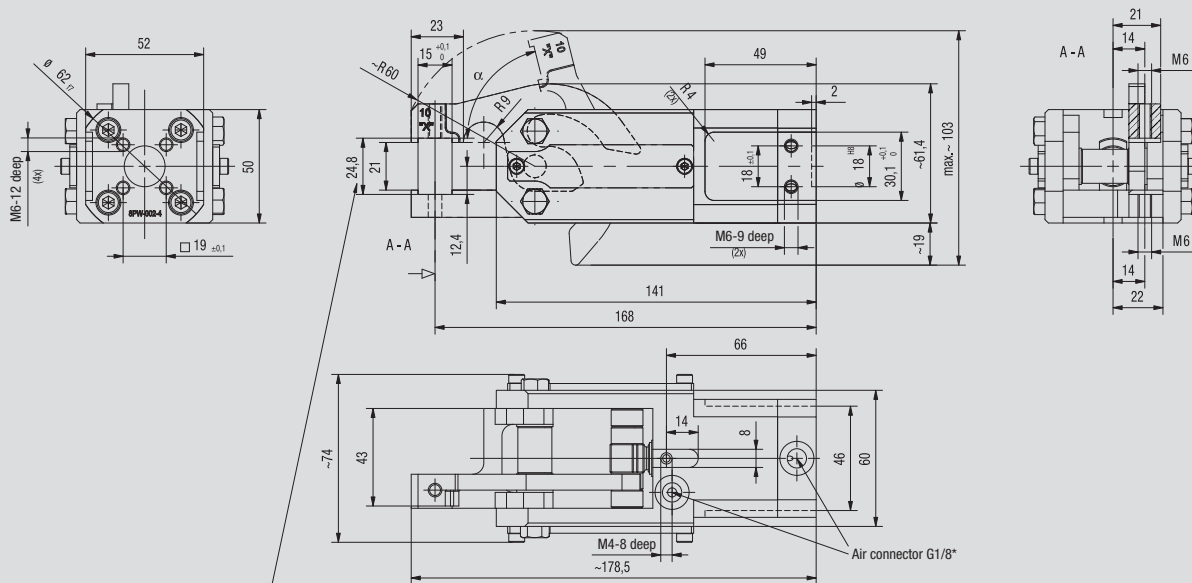
■ **Model 84A3-390000000**

84A3X390000000

84A3Y390000000

84A3Z3900000000

Model	Opening angle α
84A3-390000000	76°
84A3X390000000	30°
84A3Y390000000	45°
84A3Z390000000	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. 8 bar, operation with oil-free air is permissible.

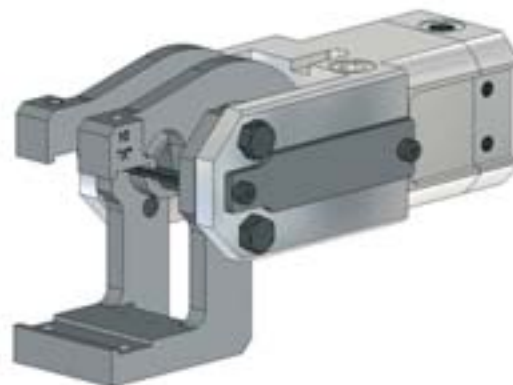
Please order separately accessories such as gripper teeth, sensing and adaptors

NEW

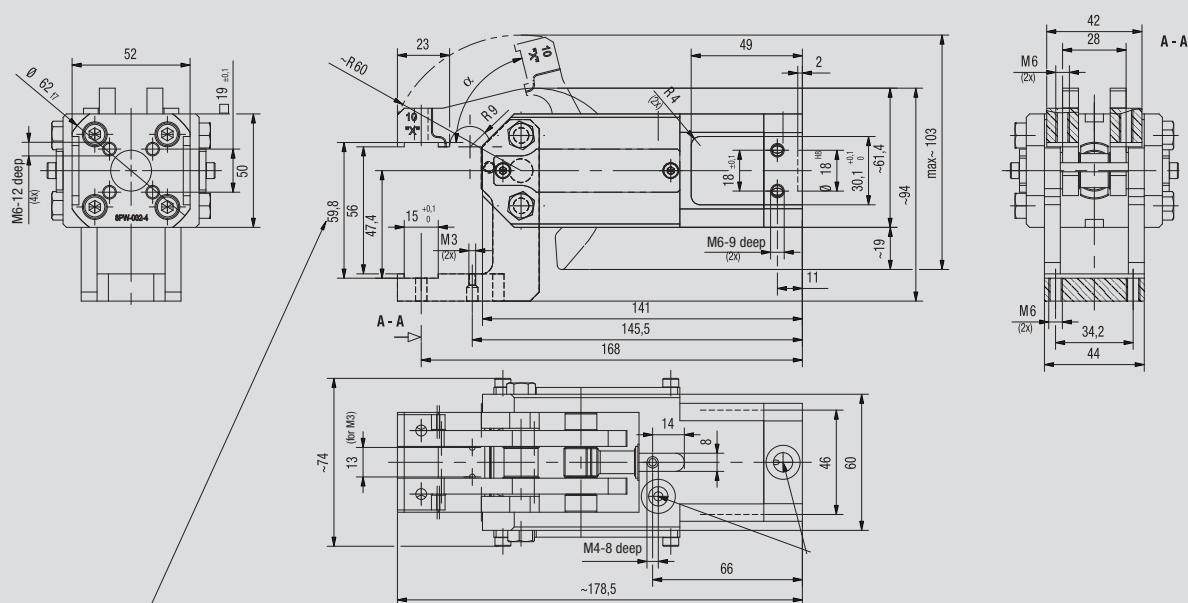
Cam Type Grippers

Cam Type Grippers

- Model 84A3-300000000
- 84A3X300000000
- 84A3Y300000000
- 84A3Z300000000



Model	Opening angle α
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!

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

Medium: air, max. 8 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 84A3-1.....

Gripper teeth steel  8JZ-014-3 8JZ-003-1 8JZ-004-1 8JZ-005-1	Gripper teeth plastic  8JZ-021-1 8JZ-023-1	Crown teeth  8JZ-015-1 8JZ-016-1 8JZ-017-1 8JZ-018-1 8JZ-032-1 For transfer free of deformation and swarf	Gripper points  8MJ-1001-1 8MJ-1002-1 8MJ-1003-1
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Gripper arm top: Gripper teeth, Gripper points, Crown teeth – Dimensions see page 19.56

Gripper teeth steel  8JZ-014-3 8JZ-001-1 8JZ-004-1 8JZ-025-1	Gripper teeth plastic  8JZ-021-1 8JZ-023-1	Crown teeth  8JZ-019-1 8JZ-020-2 For transfer free of deformation and swarf
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Gripper arm top: Gripper teeth, Gripper points, Crown teeth – Dimensions see page 19.56

8MA-006-1 	8MA-017-1 	8MH-046-1 only for model -32/-34/-35/-39 	82ZB-007-1 	82ZB-033-1 
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Adapters / Limit stops – Dimensions see page 19.56

8EA-092-1 workplace control switching distance 8 mm for 84A3-11/12/16 	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) 
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Sensing systems – Dimensions see page 19.56

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, dimensions see p 19.56 and following

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, dimensions see p 19.56 and following

Gripper teeth		Steel								Plastic			Crown teeth (For transfer free of deformation and swarf)										Gripper points			Shims							
		8JZ-014-3	8JZ-001-1	8JZ-004-1	8JZ-025-1	8JZ-026-1	8JZ-003-1	8JZ-005-1				8JZ-021-1	8JZ-023-1				8JZ-015-1	8JZ-016-1	8JZ-017-1	8JZ-018-1	8JZ-019-1	8JZ-020-2	8JZ-032-1					8MJ-1001-1	8MJ-1002-1	8MJ-1003-1	8SB-003-1		
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	●		●				●			●	●					●	●	●	●			●						●	●	●	●	

Cam Type Grippers

Steel gripper teeth	Depth of tooth
8JZ-014-3	12,00
8JZ-006-1	11,9
8JZ-001-1	14,00
8JZ-004-1	11,90
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-015-1	10,00	0,5 – 0,7
8JZ-016-1	9,80	0,8 – 1,0
8JZ-017-1	9,60	1,0 – 1,2
8JZ-018-1	9,30	1,3 – 1,5
8JZ-019-1	13,20	./.
8JZ-020-2	13,20	
8JZ-032-1	9,30	1,9 – 2,1

■ Self-locking cam type grippers

Models: **84A2-1.....**

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.

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

Picture	Model no.	clamping force at 5 bar [N]	Opening angle	Weight [kg]	Opening/closure time min [s]
	84A2-110000000	580	72° upper	0,6	0,2
	84A2X110000000	580	30° upper	0,6	0,2
	84A2Y110000000	580	45° upper	0,6	0,2
	84A2-120000000	360	72° upper	0,65	0,2
	84A2X120000000	360	30° upper	0,65	0,2
	84A2Y120000000	360	45° upper	0,65	0,2
	84A2-130000000	270	72° upper + lower	0,6	0,2
	84A2X130000000	270	30° upper + lower	0,6	0,2
	84A2Y130000000	270	45° upper + lower	0,6	0,2
	84A2R130000000	270	72° upper, 15° lower	0,6	0,2
	84A2T130000000	270	45° upper, 15° lower	0,6	0,2
	84A2-140000000	580	72° upper	0,5	0,2
	84A2X140000000	580	30° upper	0,5	0,2
	84A2Y140000000	580	45° upper	0,5	0,2
	84A2-160000000	580	72° upper	0,5	0,2
	84A2X160000000	580	30° upper	0,5	0,2
	84A2Y160000000	580	45° upper	0,5	0,2
	84A2-170000000	580	72° upper	0,6	0,2
	84A2X170000000	580	30° upper	0,6	0,2
	84A2Y170000000	580	45° upper	0,6	0,2
	84A2-180000000	340	72° upper	0,65	0,2
	84A2X180000000	340	30° upper	0,65	0,2
	84A2Y180000000	340	45° upper	0,65	0,2
	84A2-190000000	400	45° upper	0,65	0,2
	84A2X190000000	400	30° upper	0,65	0,2

* 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

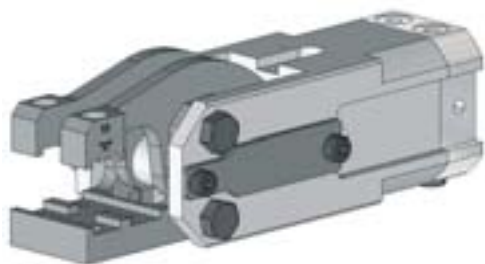
Accessoires see page 19.27

Series 84A2-1

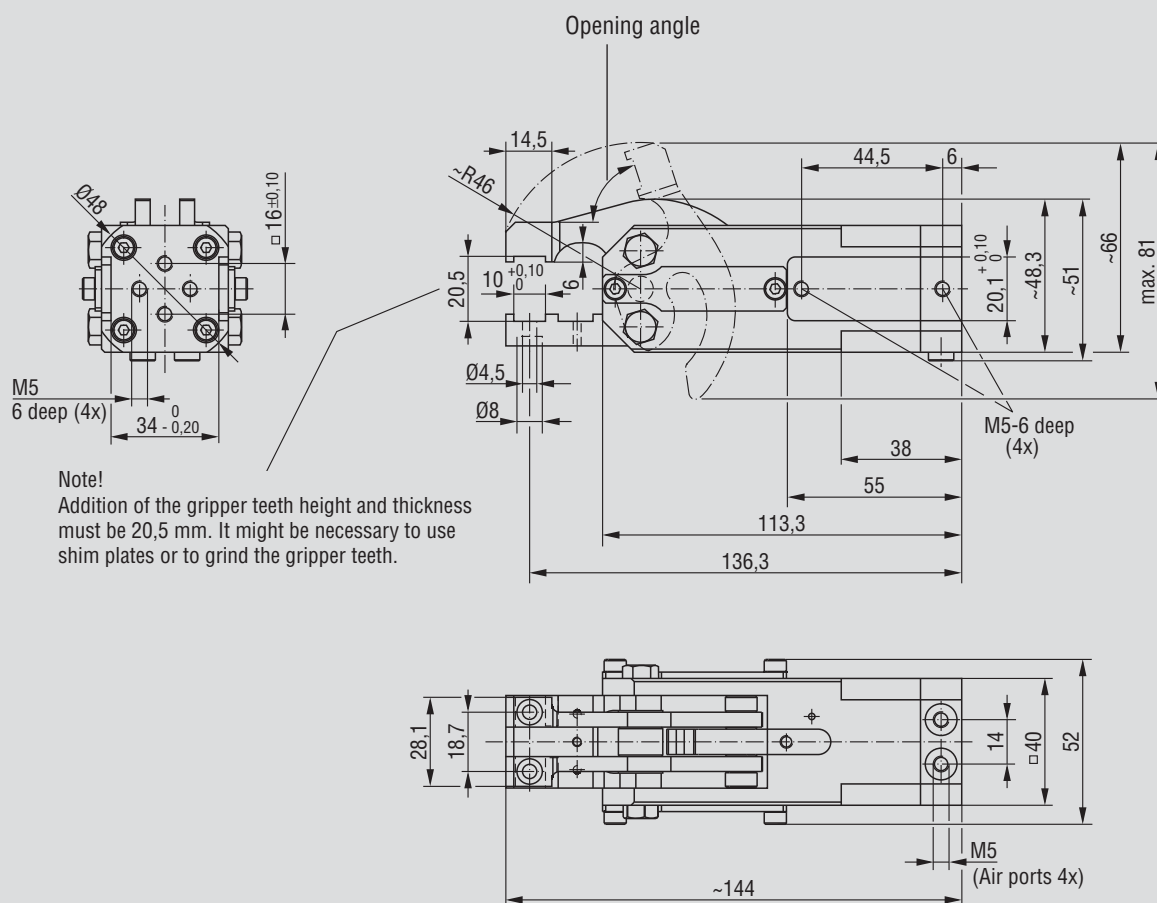
■ Model 84A2-110000000

84A2X110000000

84A2Y110000000



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



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.

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.

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

84A2Y120000000



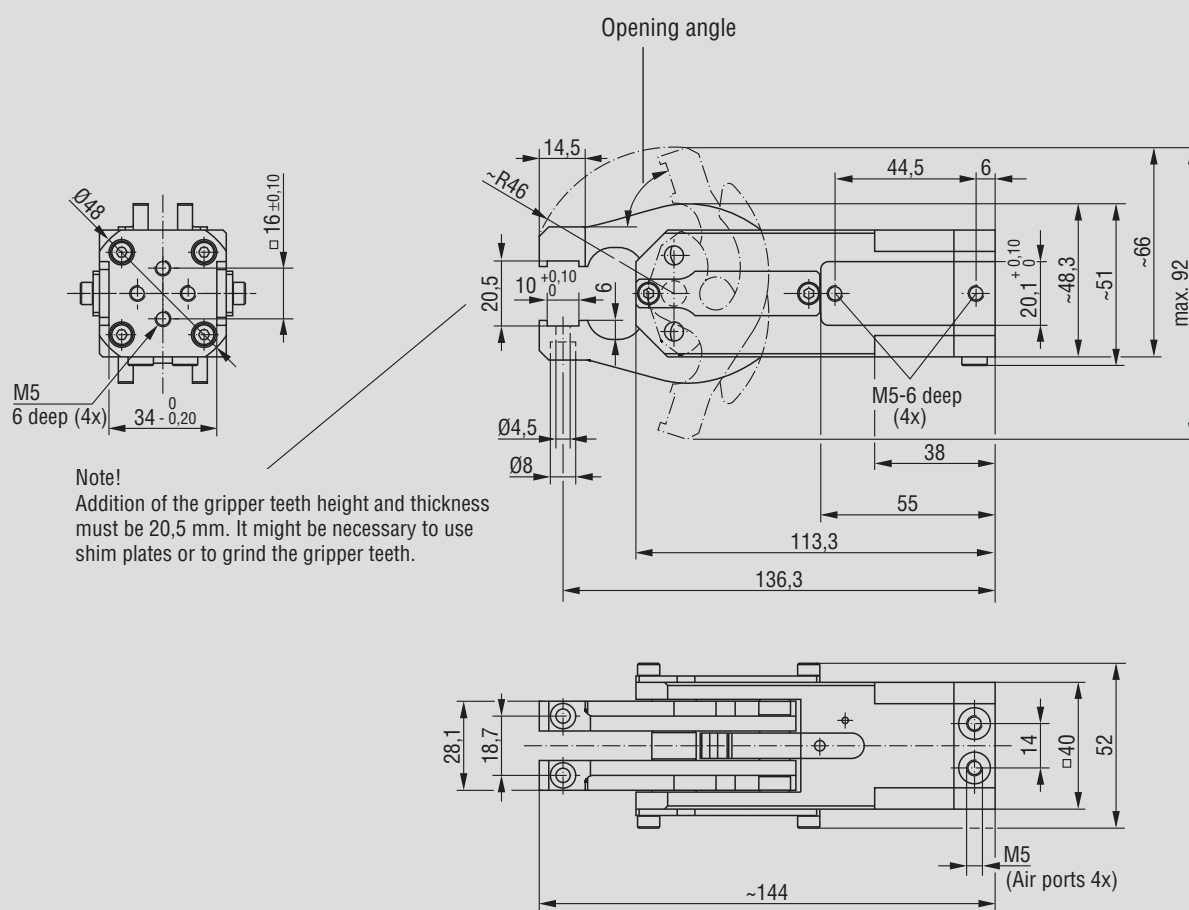
■ Model 84A2-130000000

84A2X130000000

84A2Y130000000



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



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.

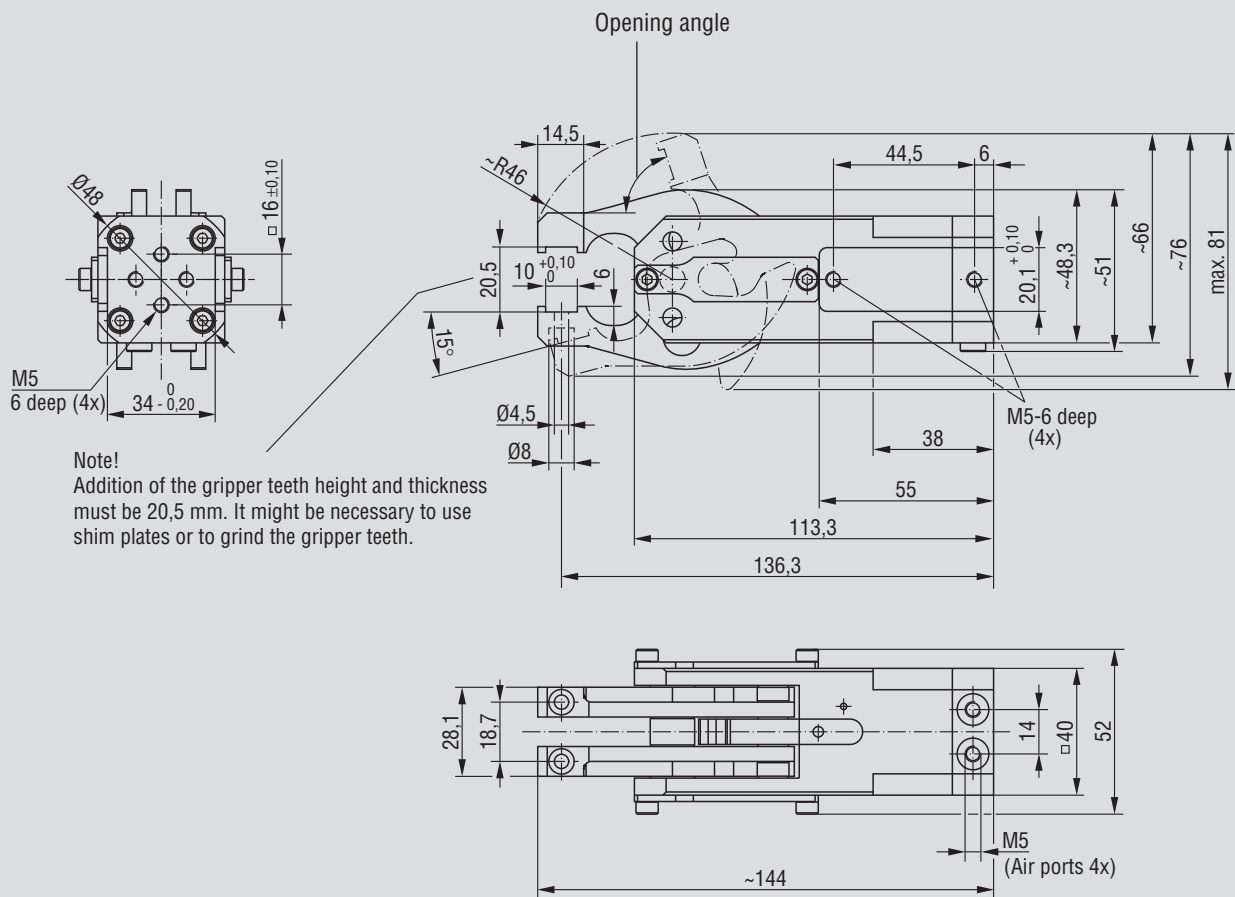
Medium: air, min. 3 bar, max. 6 bar
operation with oil-free air is permissible.

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.

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

Model	Opening angle upper	Opening angle lower
84A2R130000000	72°	15°
84A2T130000000	45°	15°

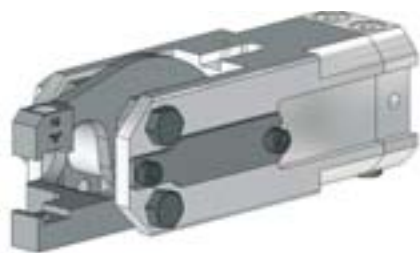


Medium: air, min. 3 bar, max. 6 bar
operation with oil-free air is permissible.

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.

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

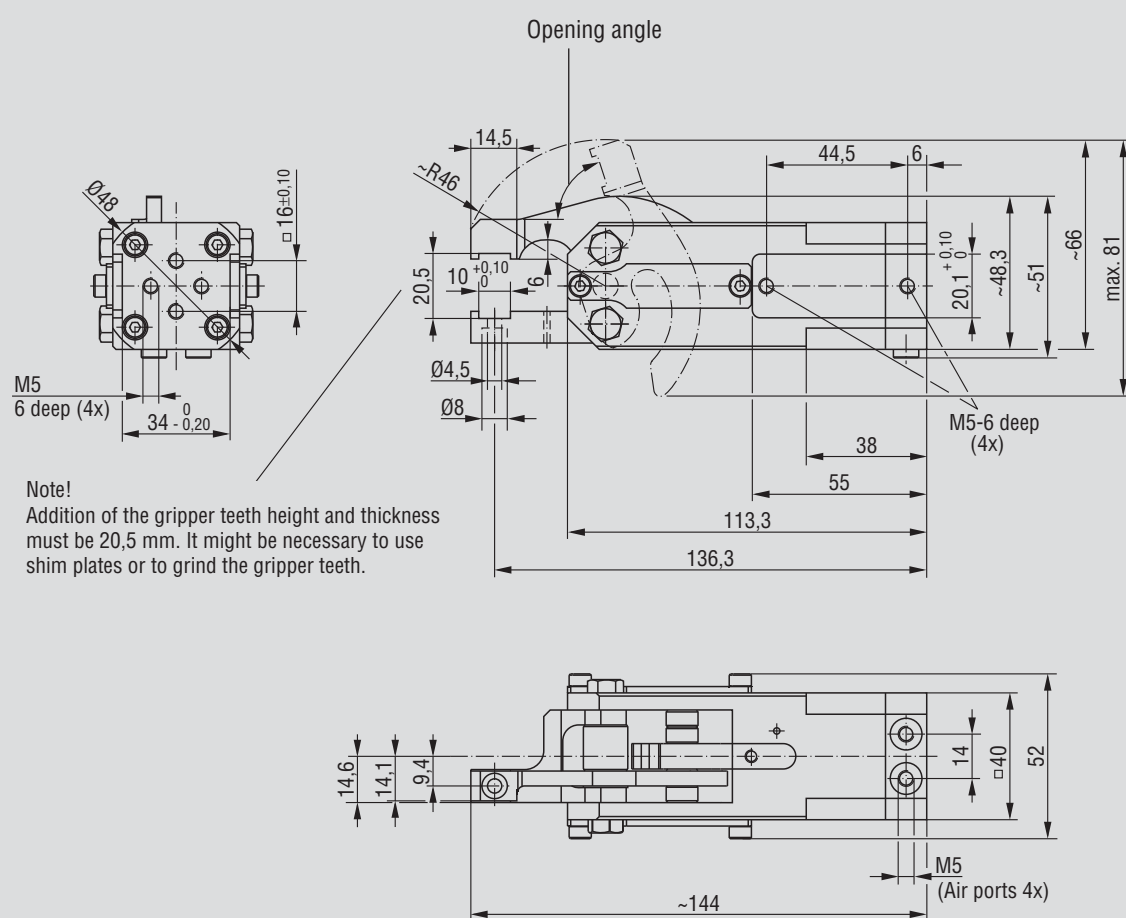


■ Model 84A2-140000000

84A2X140000000

84A2Y140000000

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



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.

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

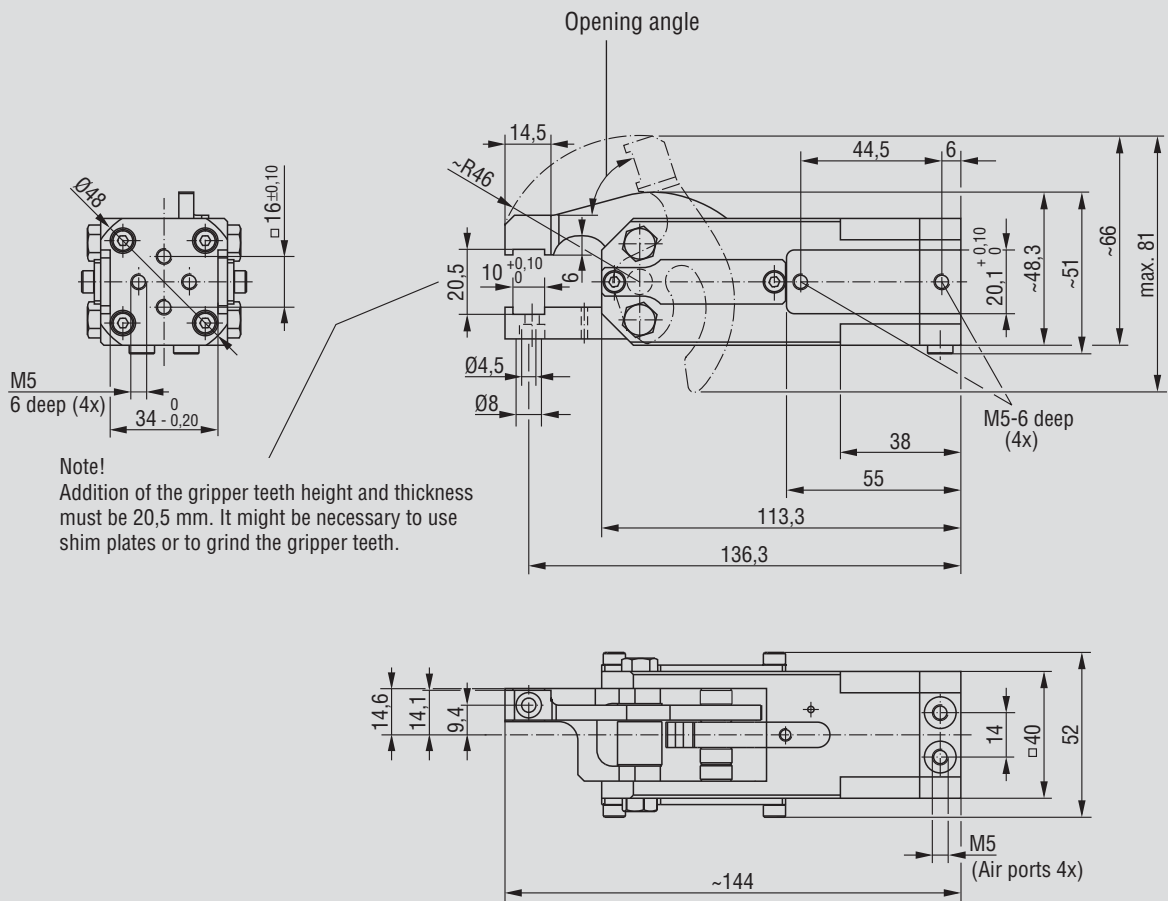
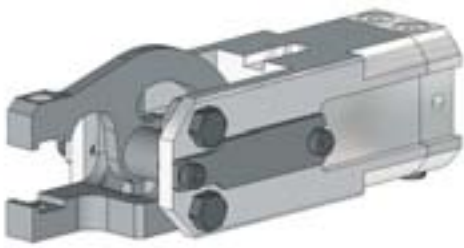
Attention!
Concept guidelines to be considered

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

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

- Model 84A2-160000000
- 84A2X160000000
- 84A2Y160000000

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



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

Series 84A2-1

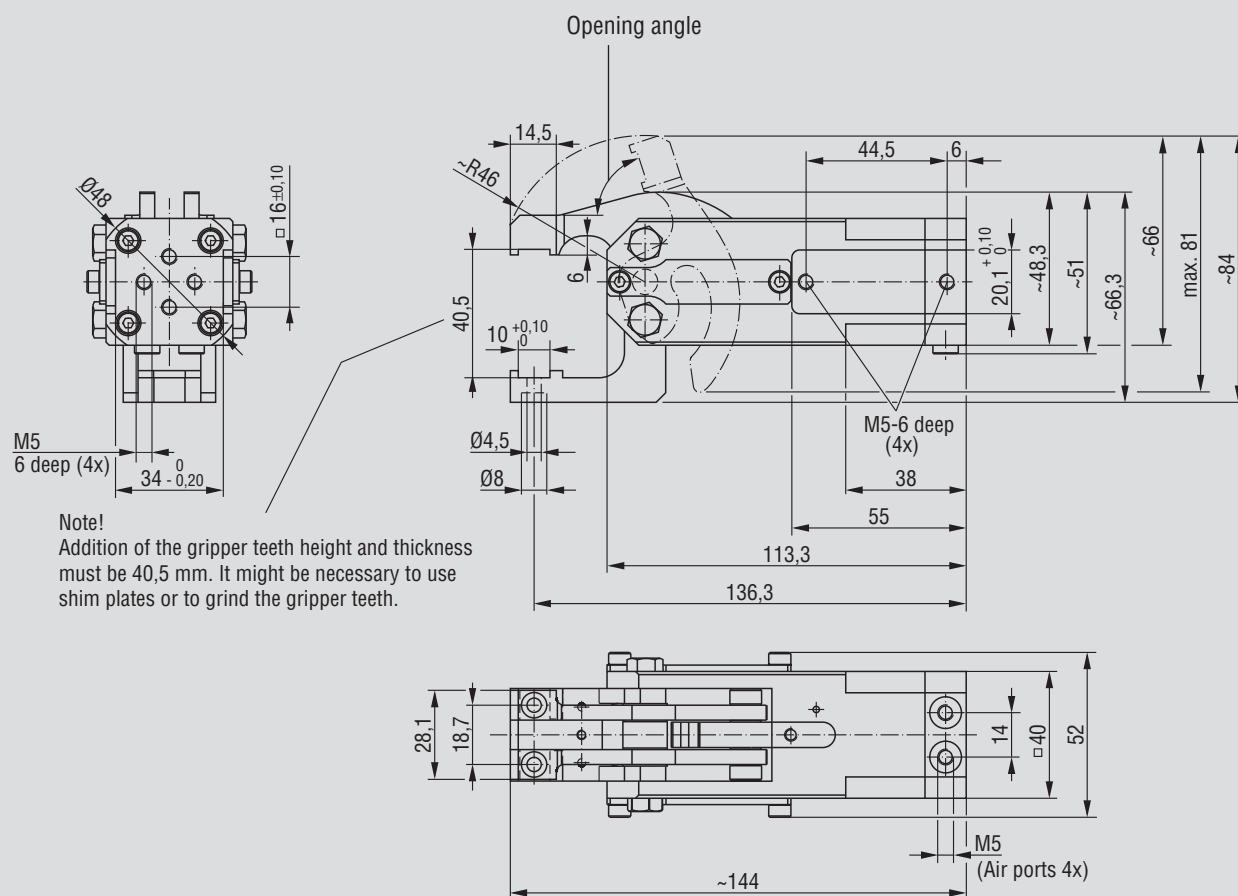


■ Model 84A2-170000000

84A2X170000000

84A2Y170000000

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



Note!
Addition of the gripper teeth height and thickness must be 40,5 mm. It might be necessary to use shim plates or to grind the gripper teeth.

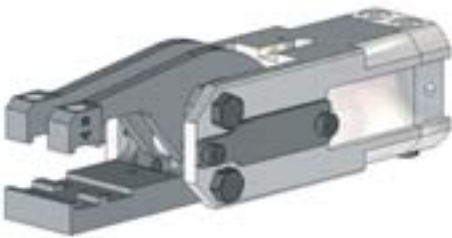
Medium: air, min. 3 bar, max. 6 bar
operation with oil-free air is permissible.

Attention!
Concept guidelines to be considered

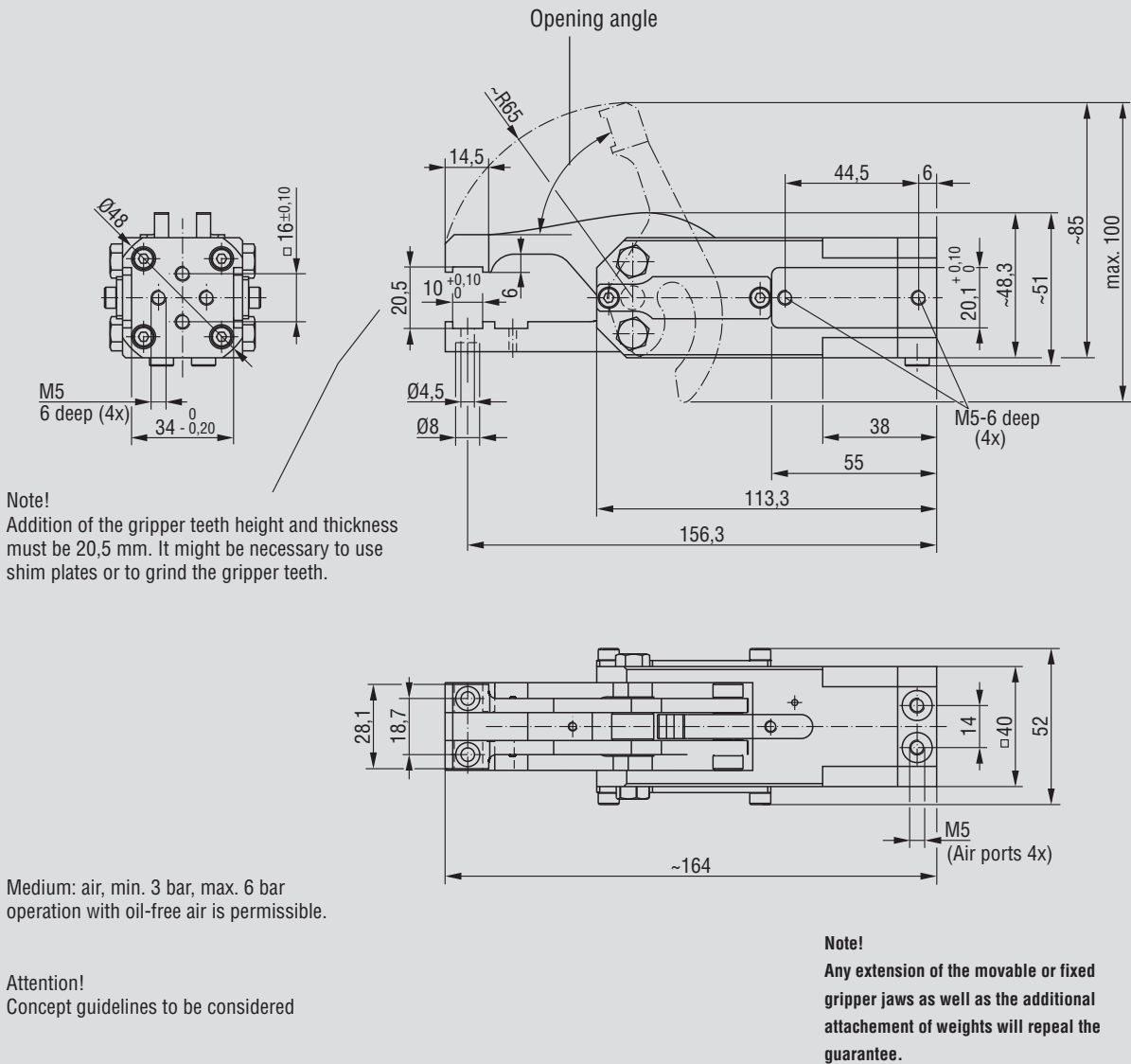
Note!
Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

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

- Model 84A2-180000000
- 84A2X180000000
- 84A2Y180000000



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

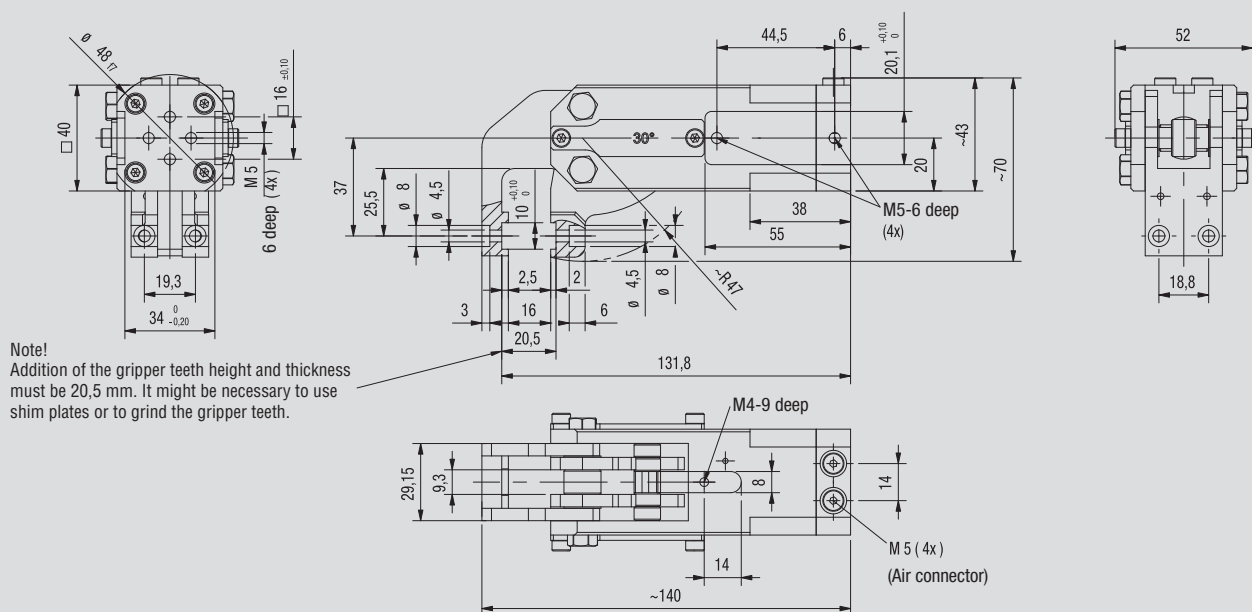


Please order separately accessories such as gripper teeth, sensing and adaptors



■ Model 84A2-190000000
84A2X190000000

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



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.

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.

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

84A2-.....
with accessories



Overview of accessories for 84A2-1 and 84A2-V

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
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(above) Gripper teeth / Gripper points – Dimensions see page 19.56

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-036-1 For transfer free of deformation and swarf
--	--	--	--

(below) Gripper teeth / Gripper points – Dimensions see page 19.56

8MA-165-1 Ø 20 mm 	8MA-166-1 Ø 25 mm 	8MH-054-1 Only for 84A2-V1 and 84A2-11 	8MA-147-1 	82ZB-025-1 	8MA-168-1 Ø 1" 
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Adapters / Limit stops – Dimensions see page 19.56

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 
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Sensors – Dimensions see page 19.56

Accessories

Opening angle limiter

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

Series 84A2-V

■ Self-locking cam type grippers

Models: **84A2-V.....**

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.

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

Picture	Model no.	Clamping force at 5 bar [N]	Opening angle	Weight [kg]	Opening/closure time min [s]
	84A2-V10000000	580	72° upper	0,6	0,2
	84A2XV10000000	580	30° upper	0,6	0,2
	84A2YV10000000	580	45° upper	0,6	0,2
	84A2-V20000000	360	72° upper	0,65	0,2
	84A2XV20000000	360	30° upper	0,65	0,2
	84A2YV20000000	360	45° upper	0,65	0,2
	84A2-V30000000	270	72° upper + lower	0,6	0,2
	84A2XV30000000	270	30° upper + lower	0,6	0,2
	84A2YV30000000	270	45° upper + lower	0,6	0,2
	84A2RV30000000	270	72° upper, 15° lower	0,6	0,2
	84A2TV30000000	270	45° upper, 15° lower	0,6	0,2
	84A2-V40000000	580	72° upper	0,5	0,2
	84A2XV40000000	580	30° upper	0,5	0,2
	84A2YV40000000	580	45° upper	0,5	0,2
	84A2-V60000000	580	72° upper	0,5	0,2
	84A2XV60000000	580	30° upper	0,5	0,2
	84A2YV60000000	580	45° upper	0,5	0,2
	84A2-V70000000	580	72° upper	0,6	0,2
	84A2XV70000000	580	30° upper	0,6	0,2
	84A2YV70000000	580	45° upper	0,6	0,2
	84A2-V80000000	340	72° upper	0,65	0,2
	84A2XV80000000	340	30° upper	0,65	0,2
	84A2YV80000000	340	45° upper	0,65	0,2
	84A2-V90000000	400	45° upper	0,65	0,2
	84A2XV90000000	400	30° upper	0,65	0,2

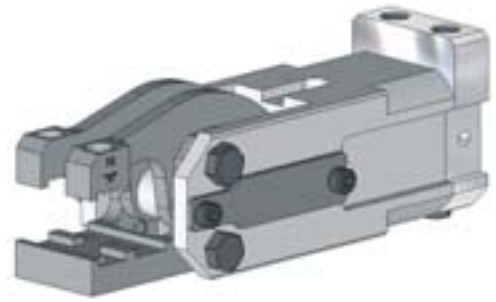
* The values of gripping forces include a safety factor 20%

Major spare parts

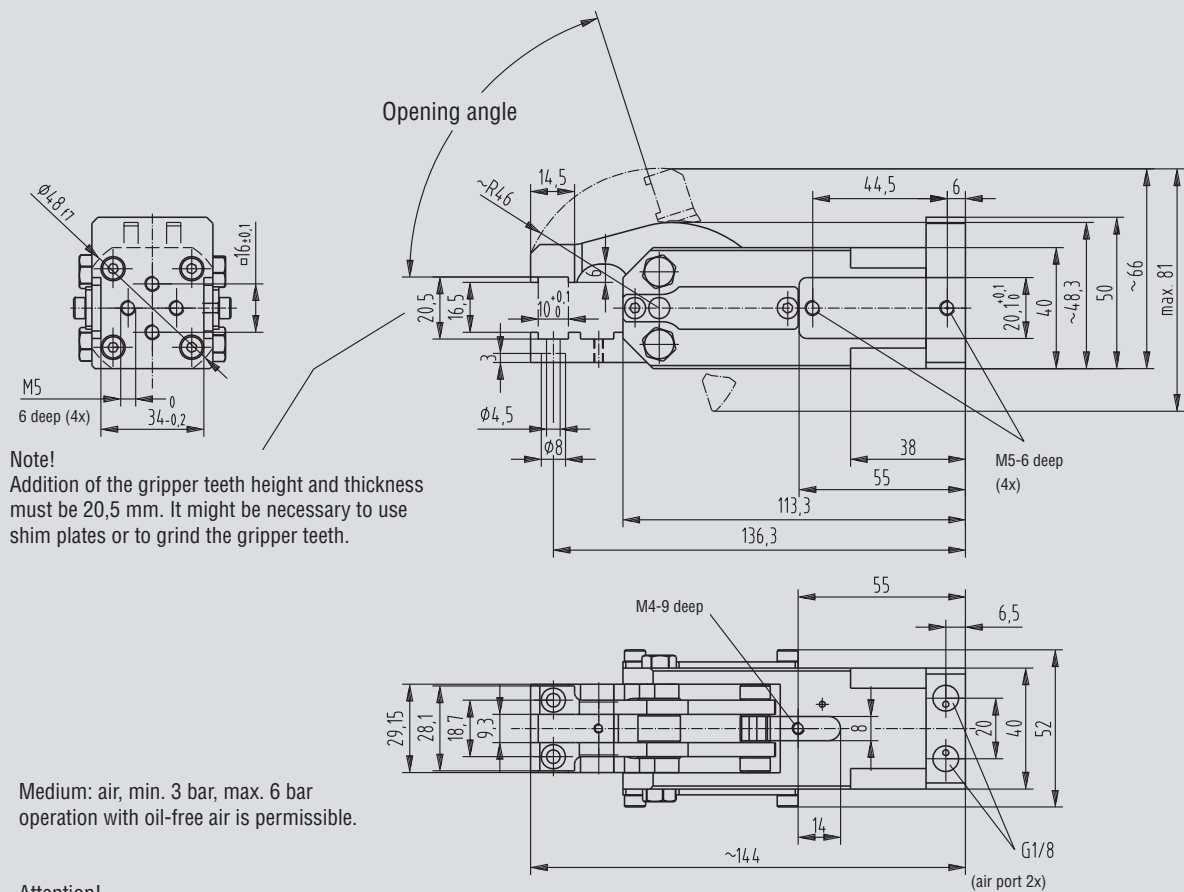
Specification	Order-no. for 84A2-1
Cylinder	8PW-070-1
Seal kit	8PW-059-1-00

Accessoires see page 19.27

84A2YV10000000



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



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.

19.29

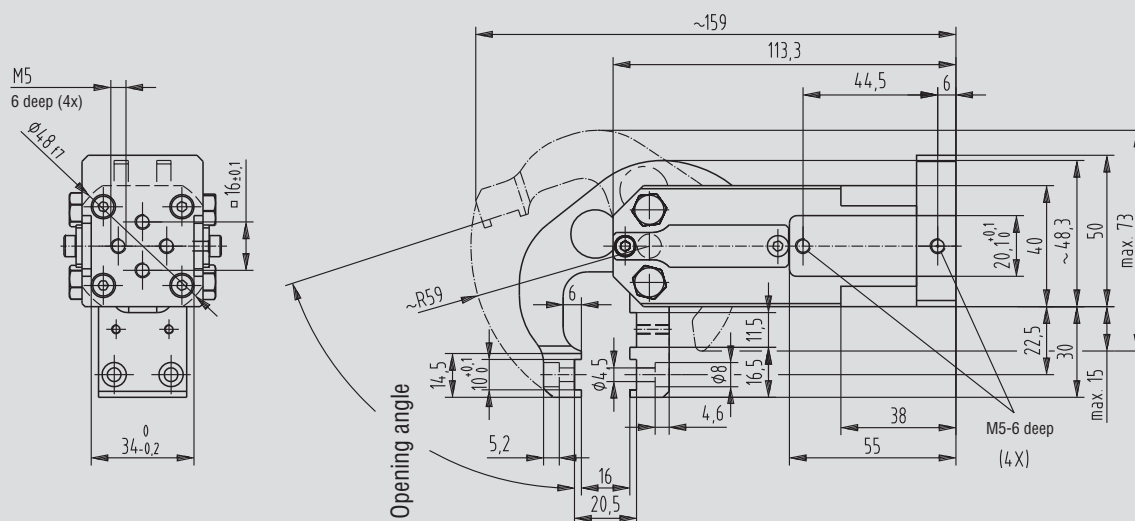


■ **Model 84A2-V20000000**

84A2XV20000000

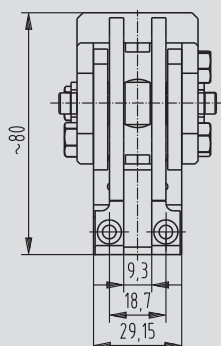
84A2YV20000000

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



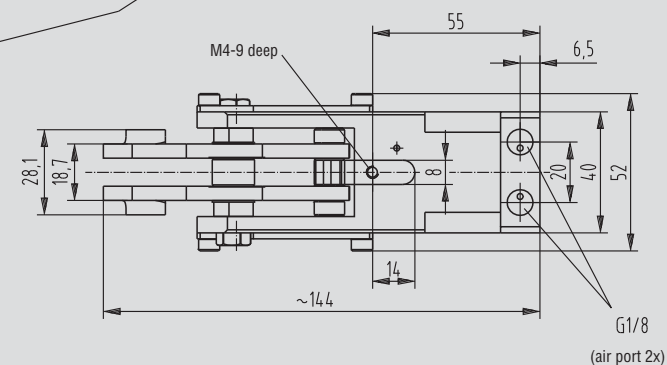
Note!

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.



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

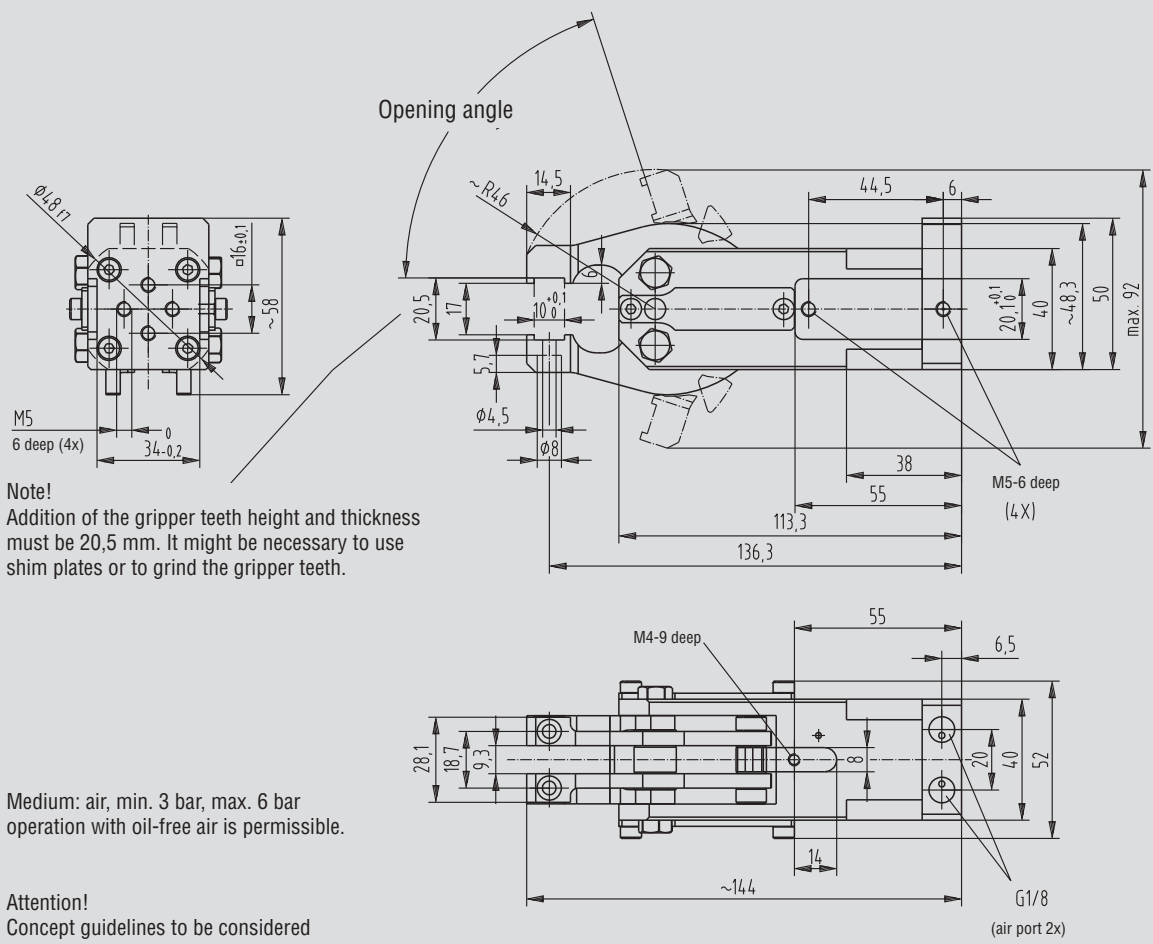
Attention!
Concept guidelines to be considered

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

- Model 84A2-V30000000
- 84A2XV30000000
- 84A2YV30000000



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

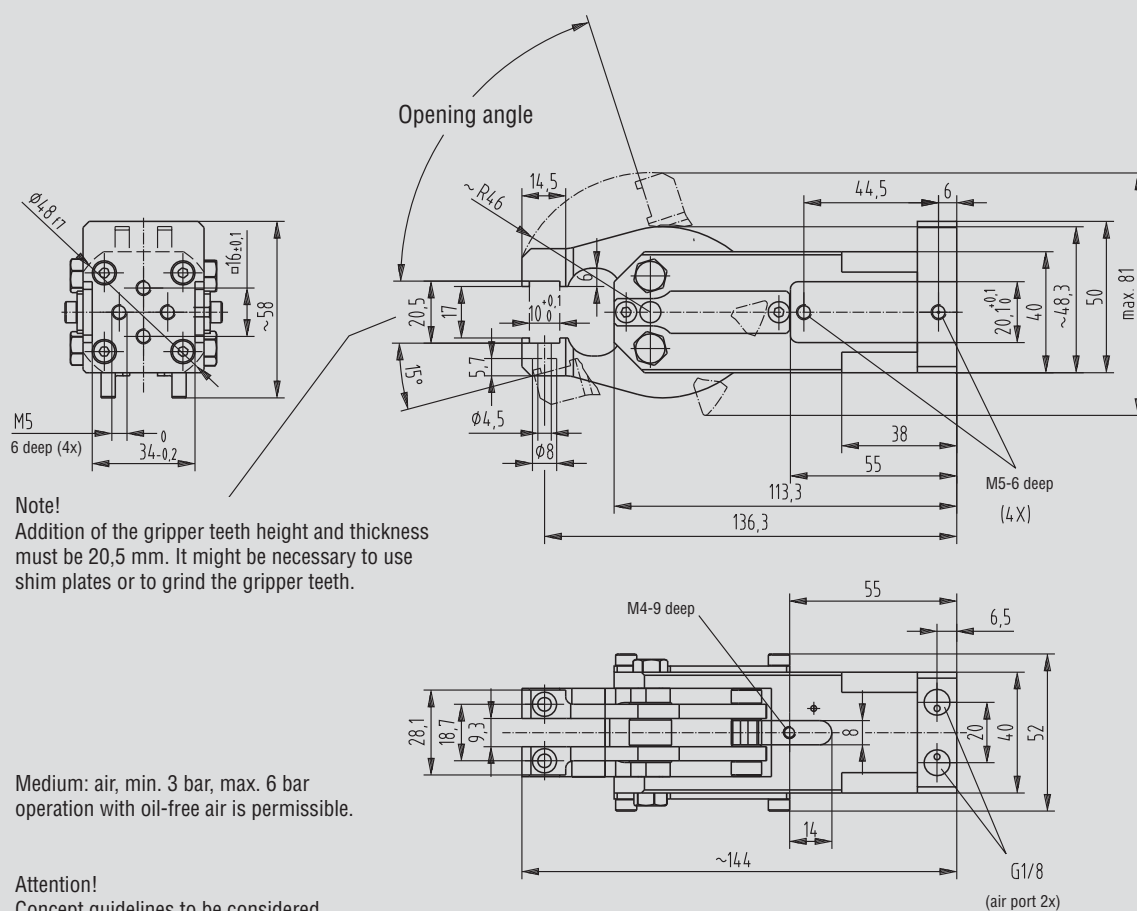


Please order separately accessories such as gripper teeth, sensing and adaptors



■ Model 84A2RV30000000
84A2TV30000000

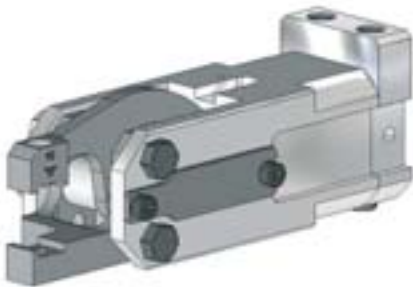
Model	Opening angle upper	Opening angle lower
84A2RV30000000	72°	15°
84A2TV30000000	45°	15°



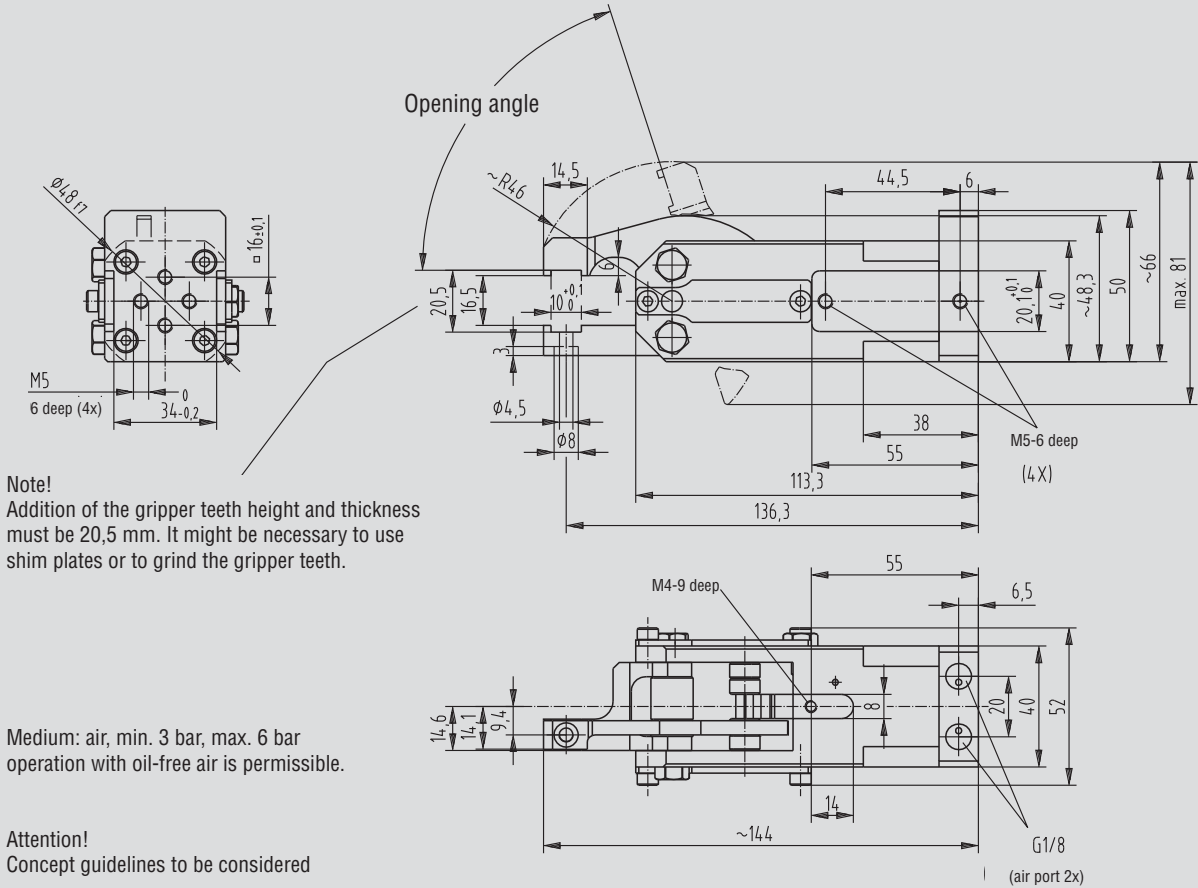
Note!
Any extension of the movable or fixed gripper jaws as well as the additional attachment of weights will repeal the guarantee.

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

- Model 84A2-V40000000
- 84A2XV40000000
- 84A2YV40000000



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.

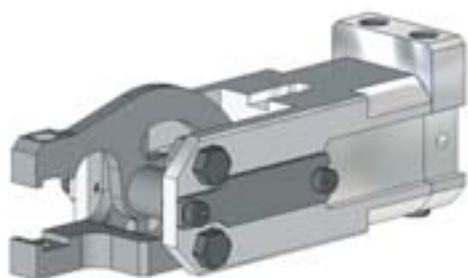
Please order separately accessories such as gripper teeth, sensing and adaptors

Series 84A2-V

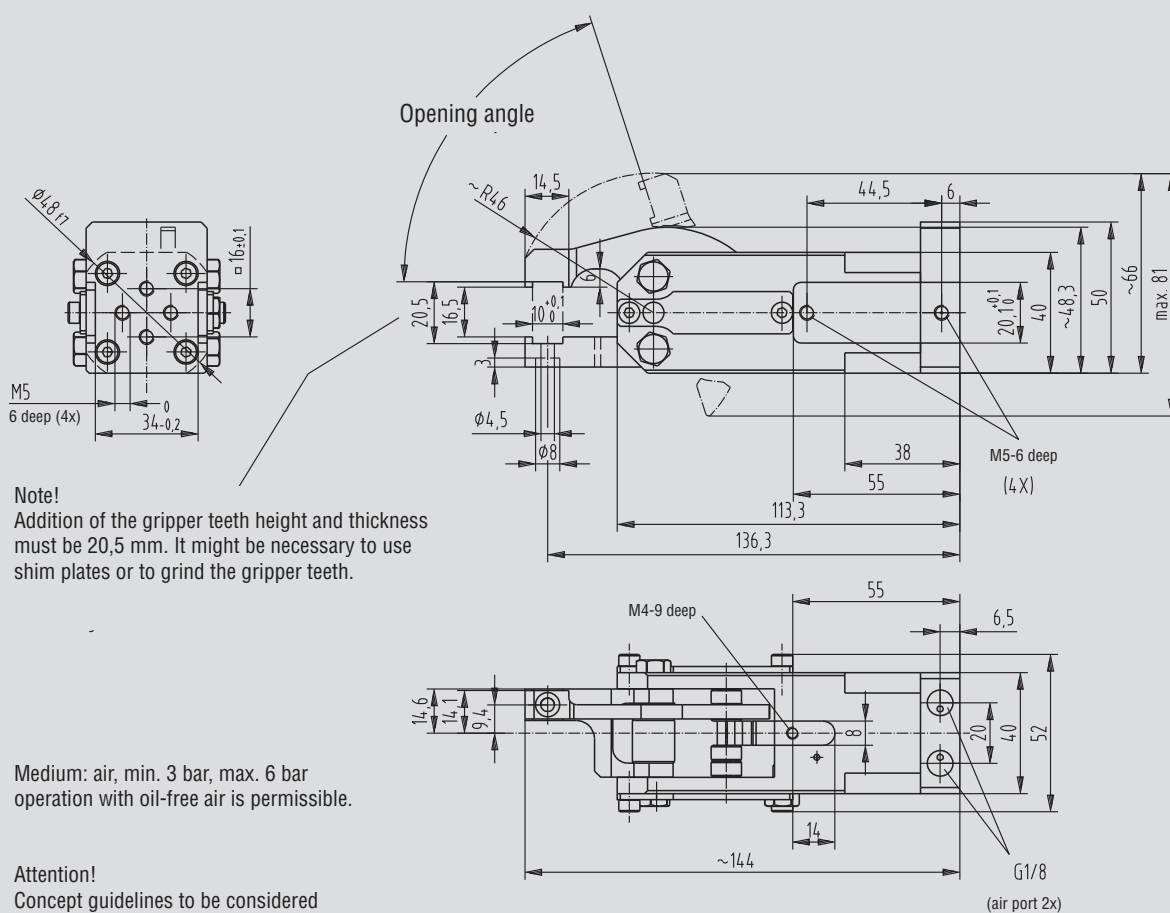
■ Model 84A2-V60000000

84A2XV60000000

84A2YV60000000



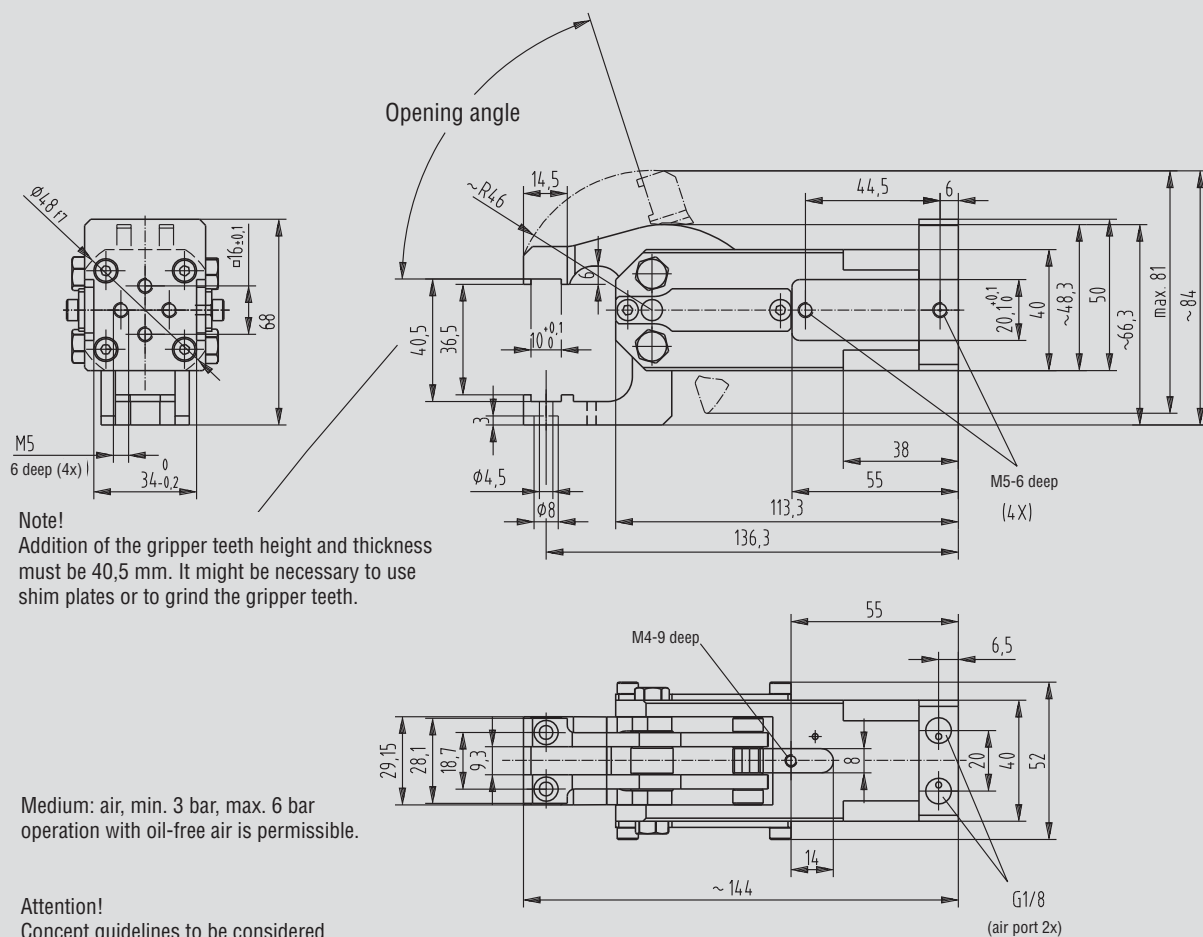
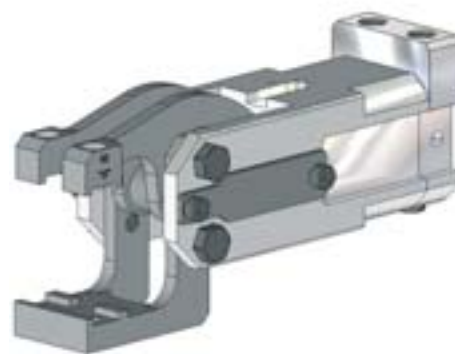
Model	Opening angle
84A2-V60000000	72°
84A2XV60000000	30°
84A2YV60000000	45°



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

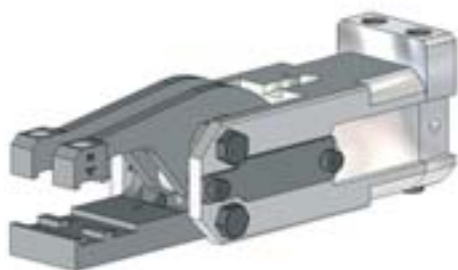
84A2YV70000000

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.

19.35

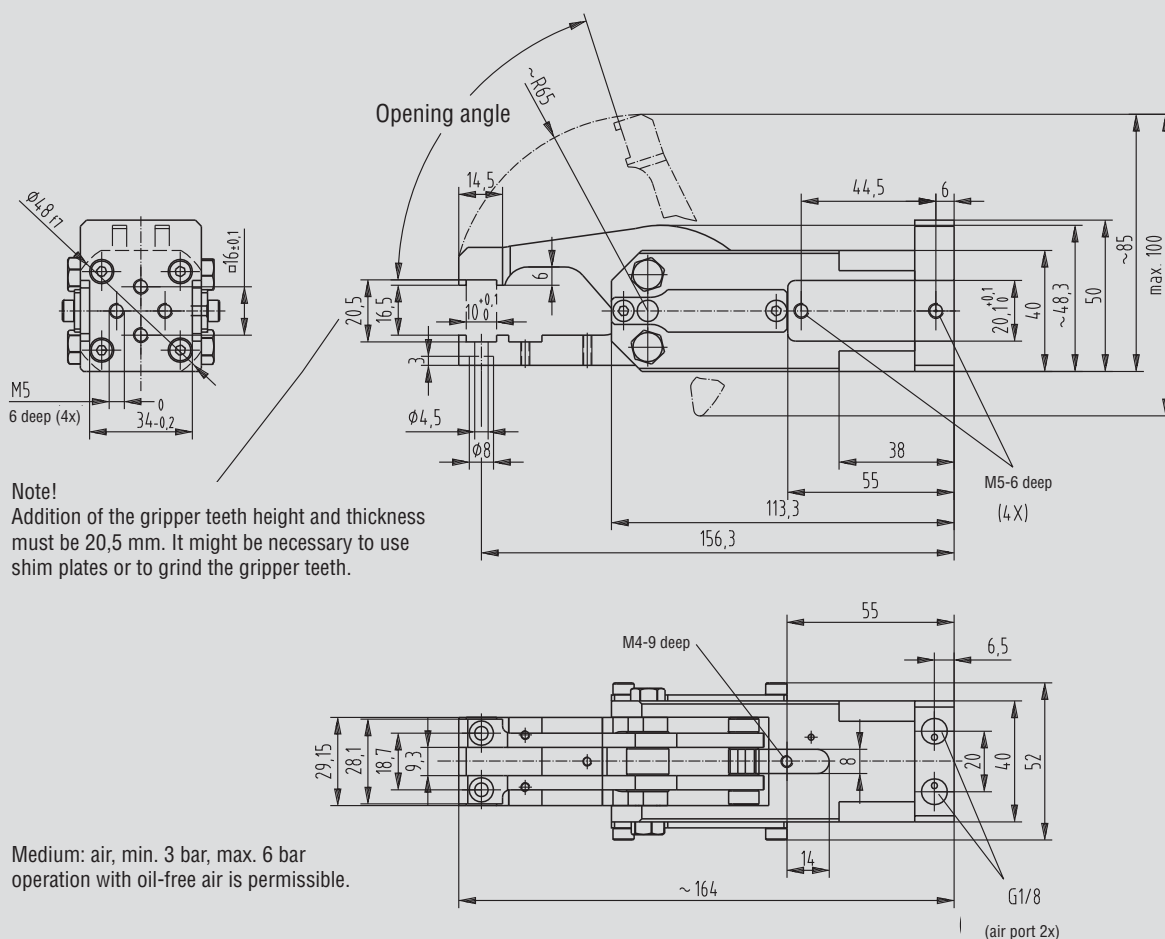


■ Model 84A2-V80000000

84A2XV80000000

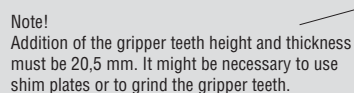
84A2YV80000000

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



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

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



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.

19.37

Series 84B3-1

■ Grippers with lever drive

Modelle: **84B3-110000000**

84B3-120000000

84B3-130000000

84B3-140000000

84B3-150000000

Application:

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

Key areas of application:

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

Features:

- compact aluminum body: low weight
- fast gripping action
- gripper with two cylinders supports separate opening and closing actions
- straight gripper design, horizontal clamping position
- add-on sensing system



84B3-110000000

84B3-120000000

84B3-130000000

84B3-140000000

84B3-150000000

Model no.	No. of cylinders	Clamping position	Standard opening angle ~	Clamping force at 6 bar [N]	Max. operating pressure [bar]	Piston Ø [mm]	Air consumption per double stroke at 6 bar [dm³]	Compressed air connector G	Weight ~ [kg]
84B3-110000000	1	horizontal	90°	90	6	32	0,34	G1/8	1,3
84B3-120000000	2	horizontal	2 x 90°	84	6	2 x 32	2 x 0,34	G1/8	2,3
84B3-130000000	1	horizontal	90°	57	6	32	0,34	G1/8	1,4
84B3-140000000	2	horizontal	90°	24,5	6	2 x 32	2 x 0,34	G1/8	2,5
84B3-150000000	1	horizontal	90°	90	6	32	0,34	G1/8	1,4

Accessories (for dimensions see page 19.56)

Specification	Order no. for	
	84B3-110000000 84B3-130000000 84B3-150000000	84B3-120000000 84B3-140000000
Shims for gripper teeth	8SB-003-1	8SB-003-1
Gripper teeth	8JZ-014-3 8JZ-004-1	8JZ-014-3 8JZ-004-1
Gripper points	8JZ-010-1	8JZ-010-1
Sensing system		
Component control	8EA-092-1	—
End position sensing at cylinder (2 pcs per cylinder)	SME-3-LED	SME-3-LED
Shims for component sensing system	8MB-003-1	—

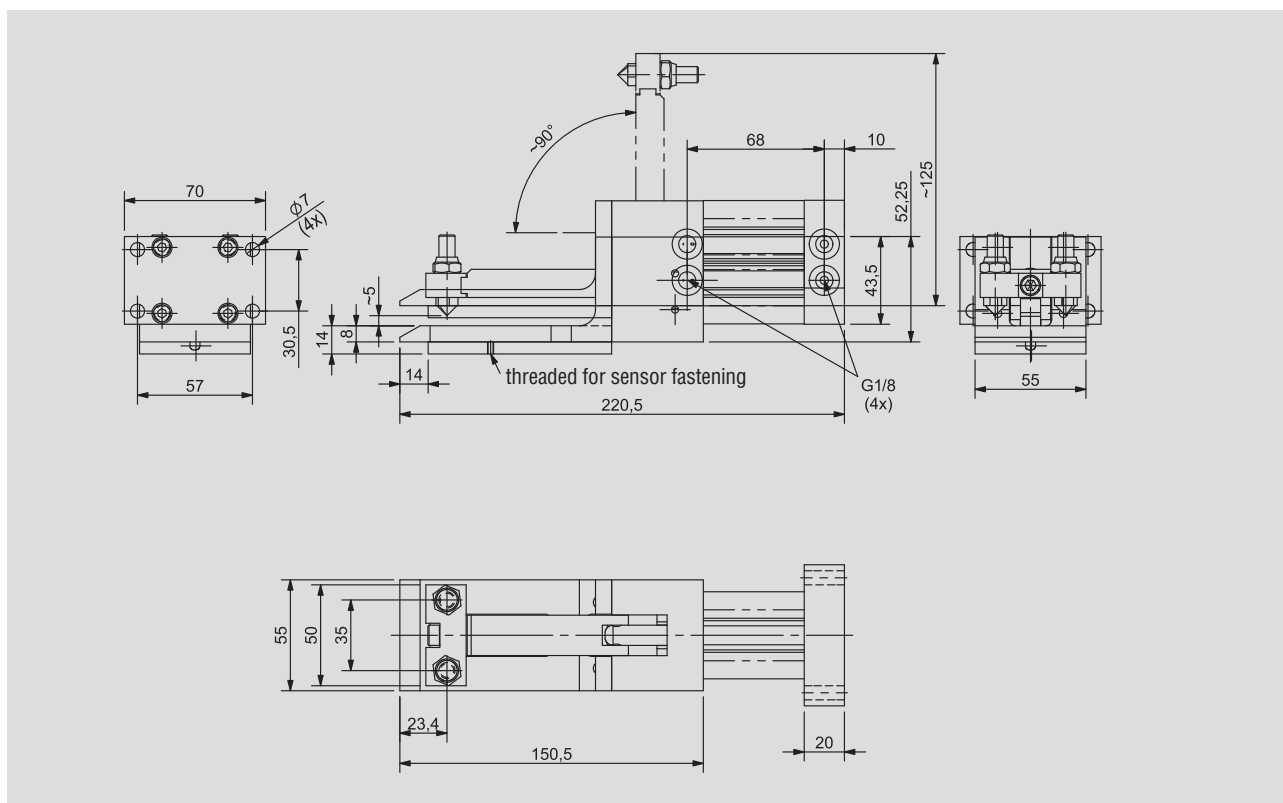
Major spare parts

Specification	Order no. for
	84B3-1....
Seal kit	84B32-1-00

[illegible]

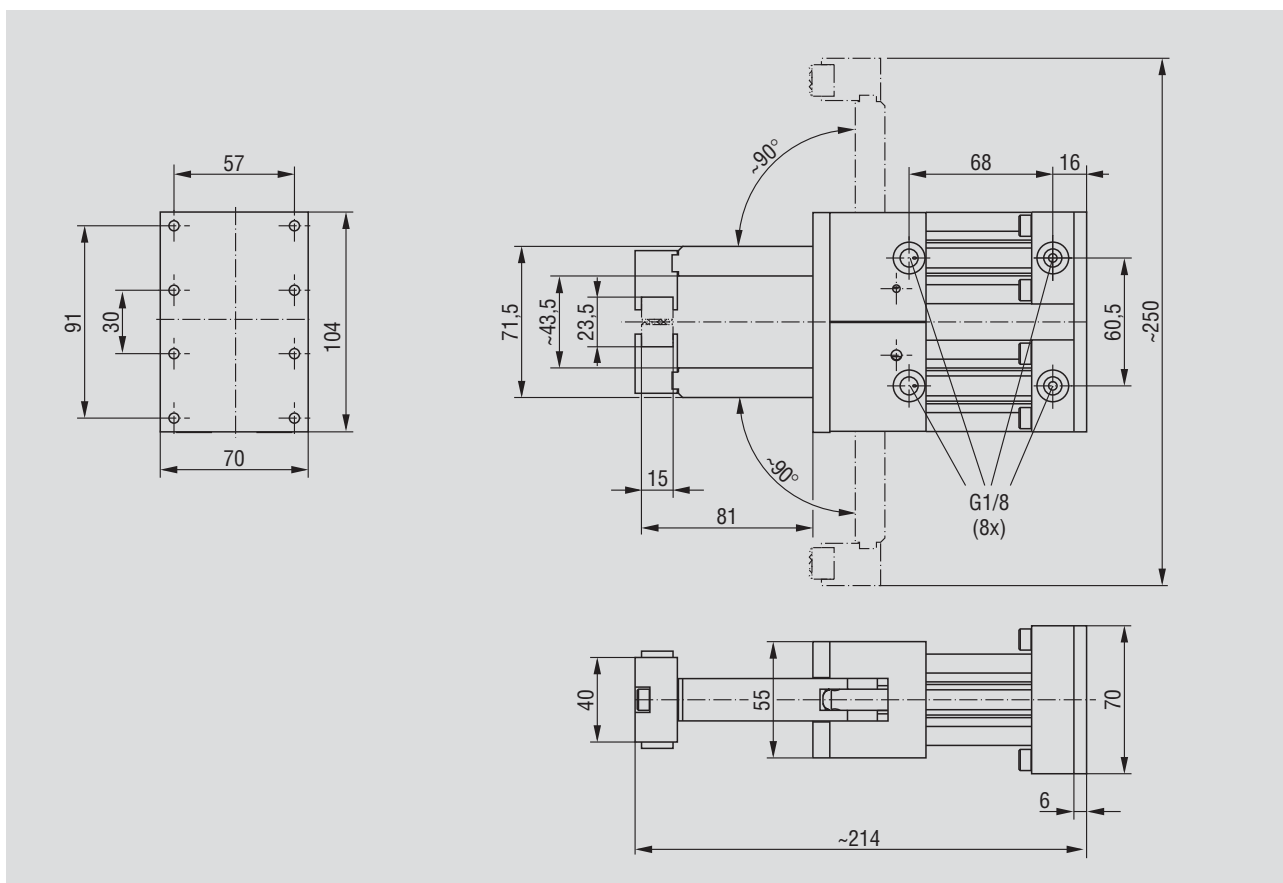
19.39

84B3-130000000



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

84B3-140000000



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

[illegible]

Series 84C2-1

■ Grippers, miniature design

■ Gripper models

	old number
84C2-110000000, Horizontal cylinder, w/o sensing lever	8010-3
84C2-11AC00000, Horizontal cylinder, w/ sensing lever	8010-3A
84C2-120000000, Vertical cylinder, w/o sensing lever	8011-3
84C2-12AC00000, Vertical cylinder, w/ sensing lever	8011-3A

Key areas of application:

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

Features:

- small size, low weight
- fast gripping action
- horizontal or vertical cylinder position
- straight gripper design, horizontal clamping position
- sensing lever and inductive sensor for component sensing

Application:

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



84C2-11AC00000, horizontal cylinder, with sensing lever



84C2-12AC00000, vertical cylinder, with sensing lever

Model no.	Clamping position	Standard opening angle ~	Clamping force at 6 bar [N]	Max. operating pressure [bar]	Piston Ø [mm]	Air consumption per double stroke at 6 bar [dm³]	Compressed air connector G	Weight ~ [kg]
84C2-110000000 84C2-11AC00000 84C2-120000000 84C2-12AC00000	horizontal	60°	100	8	20	0,13	M5	0,95

Ordering code for 84C2-1 grippers, small product line

Example order no.: **84C2 - 11 AC 0 00 00**

82C2-11 	82C2-12 	00 = without lever of sensing system AC = 8EA-059-1 lever of sensing system and bracket for sensor Sensor Ø8 from customer side	00 = without adapter	00 = without teeth	00 = without teeth
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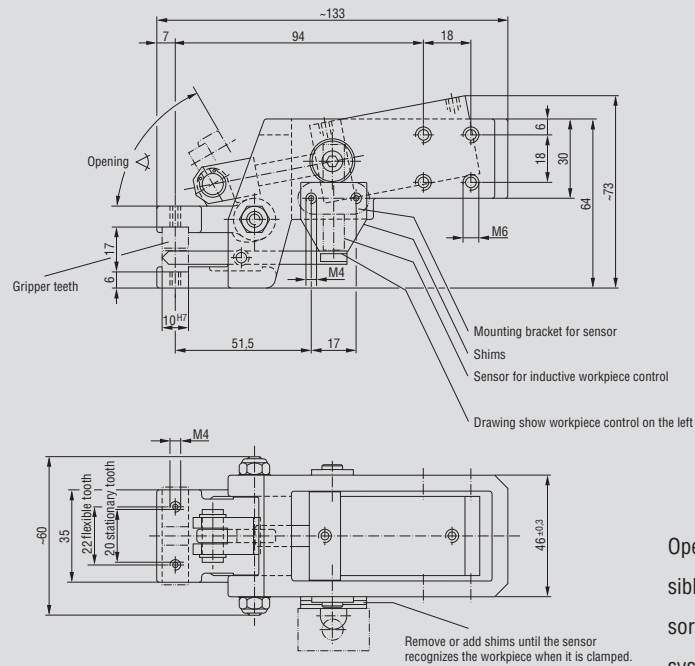
Accessories

Specification	Order no.
Sensing lever (without sensor)	8EA-059-1
Gripper teeth (ill. on p 19.24 and foll.)	8010-1-30

Major spare parts

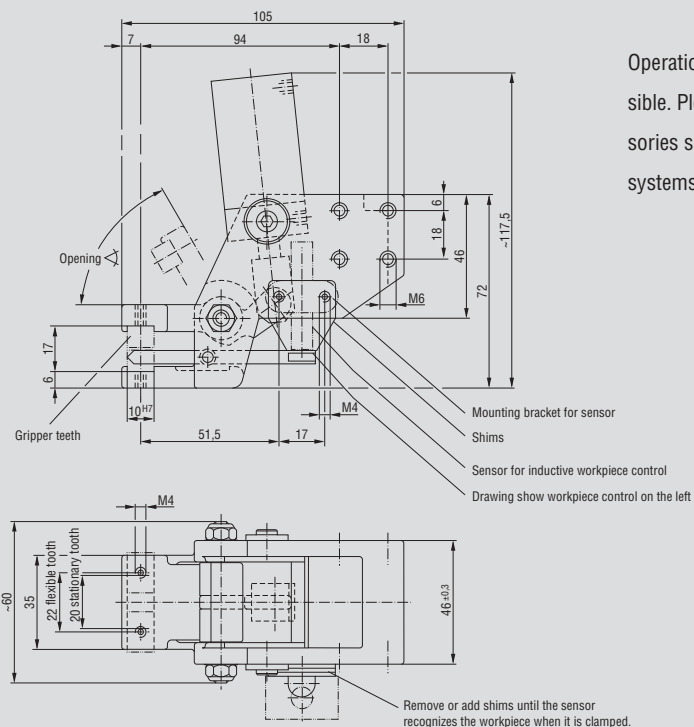
Specification	Order no.
Cylinder	8010-3-5F
Seal kit	8010-3-5F-00

84C2-11.....



Operation with oil-free air is permissible. Please order separately accessories such as gripper teeth, sensing systems and adapters.

84C2-12.....



Operation with oil-free air is permissible. Please order separately accessories such as gripper teeth, sensing systems and adapters.

Series 84D3-1

■ Clamping gripper, enclosed model, with two clamping arms

Models: **84D3-1C.....**

Application:

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



84D3-1CD300000

Gripper with end position sensing system
Horizontal clamping position

Key areas of application:

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

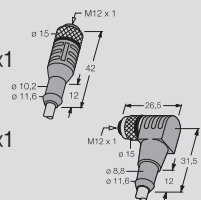
Features:

- compact aluminium body: low weight
- enclosed body: low dirt accumulation
- two moving gripper jaws
- integrated over-centre locking (toggle lock mechanism)
- straight gripper design, horizontal clamping position
- with or without end position sensing system

Model no.		Clamping position	Standard opening angle	Clamping torque at 5 bar	Max. operating pressure	Piston Ø	Air consumption per double stroke at 5 bar	Compressed air connector	Weight
w/o sensing	w/ ind. sensing plug connection M12x1								
84D3-1CL200000	84D3-1CD300000	horizontal	137°	30 [Nm]	6 [bar]	32 [mm]	0,44 [dm³]	G 1/8	~ [kg]

Accessories (dimensions see page 19.56)

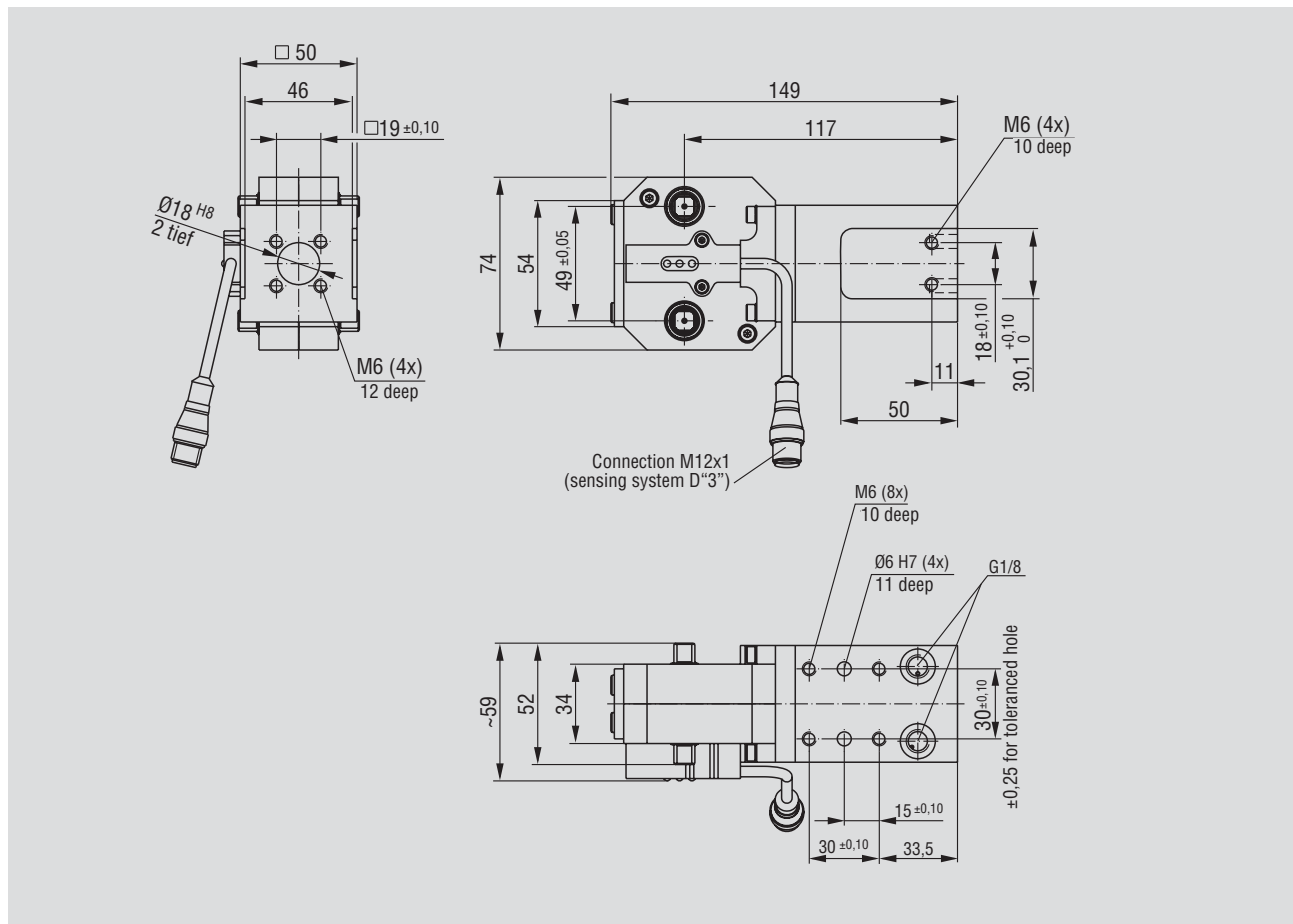
Specification	Order no. for	
	84D3-1CL200000	84D3-1CD300000
Shims for gripper teeth	8SB-003-1	8SB-003-1
Gripper teeth	8JZ-014-2	8JZ-014-2
	8JZ-004-1	8JZ-004-1
Gripper points	8MJ-1001-1, 8MJ-1002-1, 8MJ-1003-1,	
Adaptor	8MA-006-1	8MA-006-1
Connector cable (1 connector socket & 5 m cable)		
Sensing D3		
Connector socket M12x1 straight, 5-pin	—	8EL-002-1
Connector socket M12x1 angular, 4-pin	—	8EL-003-1



Major spare parts

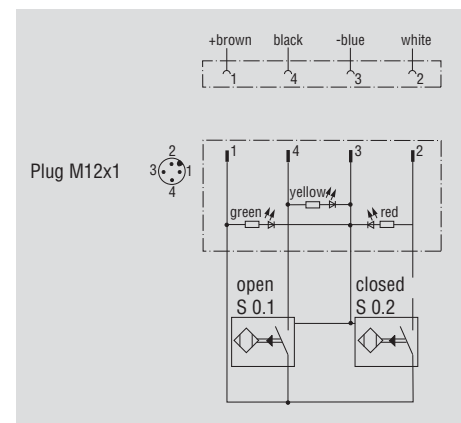
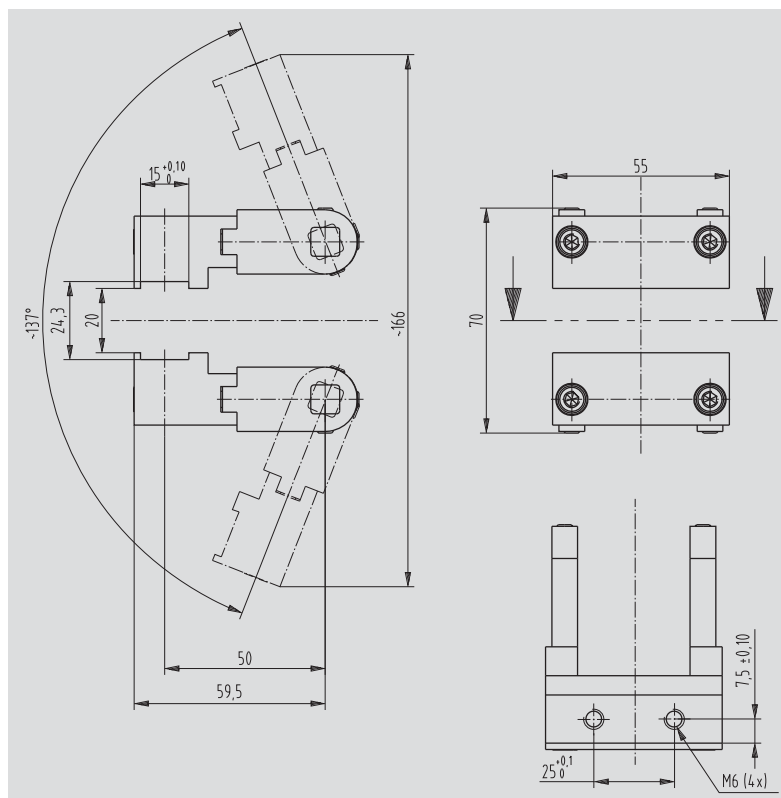
Specification	Order no. for	
	84D3-1CL200000	84D3-1CD300000
Cylinder	8PW-031-1	8PW-031-1
Seal kit	8PW-031-1-00	8PW-031-1-00
Sensing D3 (plug connector M12x1 w/ lead)	—	8EA-034-1

84D3-1...



Operation with oil-free air is permissible. Please order separately accessories such as gripper teeth, sensing systems and adaptors.

Clamping arms 84D3-1..., detail



Wiring diagram of electrical sensing system

Sensing system immune to interference from d.c. arc welding and a.c. arc welding

Inductive version:

- **D3**, inductive, plug connector M12x1 with lead

Series 84E3-1

■ Gripper, open design

Model: **84E3-1100000PF** Gripper
(Old number: 8026-1, 8026-1X12)

Application:

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

Key areas of application:

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

Features:

- compact aluminium body: low weight
- rapid gripping action
- high clamping force
- straight gripper design, horizontal clamping position
- add-on sensing system



Model no.	Clamping position	Standard opening angle ~	Clamping force at 6 bar [N]	Max. operating pressure [bar]	Piston Ø [mm]	Air consumption per double stroke at 5 bar [dm³]	Compressed air connector G	Weight ~ [kg]
84E3-1100000PF	horizontal	90°	240	8	35	0,8	G1/8	1,4

Overview of accessories for 84E3-1

8EA-092-1 workplace control switching distance 8 mm 	lower  8JZ-008-1 (lower) 8JZ-009-1 (upper) upper  8JZ-010-1 (upper)  8MF-007-1 (lower)	
Sensing system	Gripper teeth / guide piece / gripper points	

Dimensions of accessories see page 19.56

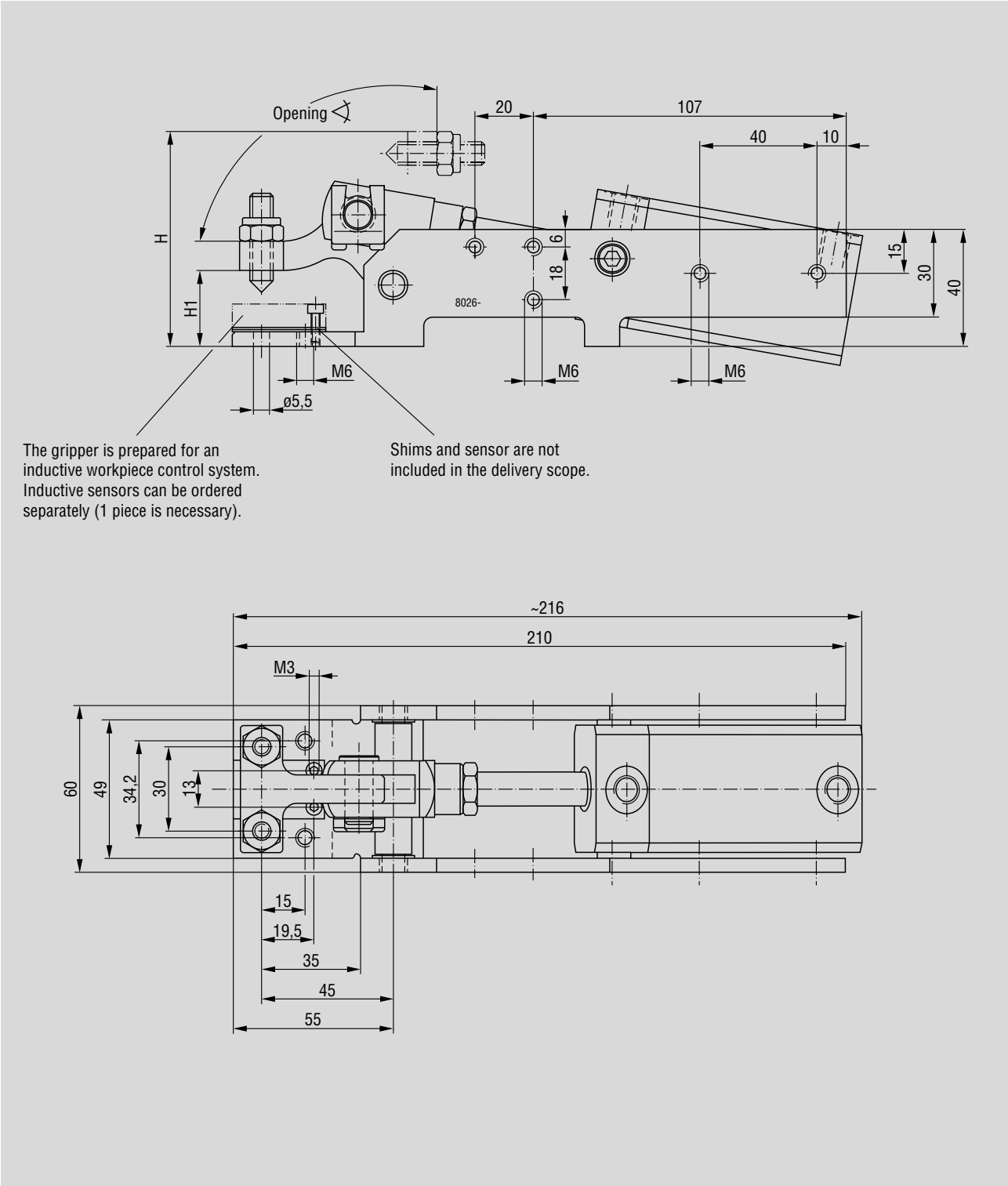
Accessories (dimensions see page 19.56)

Specification	Order no.
Shims for gripper teeth	8SB-003-1
Shims for component sensor	8MB-003-1

Major spare parts

Specification	Order no.
Cylinder	8PW-006-1
Seal kit	8PW-006-1-00

84E3-1100000PF



Operation with oil-free air is permissible. Please order separately accessories such as gripper teeth, sensing systems and adaptors.

Series 84G3-1

DISCONTINUED MODEL

- Clamping gripper, enclosed model, with locking toggle mechanism

Models:

84G3-11D100000 (old number: 84G32-101C801)

84G3-12D100000 (old number: 84G32-102C801)

Application:

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

Key areas of application:

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

Features:

- compact aluminium body: low weight
- enclosed body: low dirt accumulation
- high holding torque
- integrated over-centre locking (toggle lock mechanism)
- straight or angular gripper design, horizontal or vertical clamping position
- integrated end position sensing system



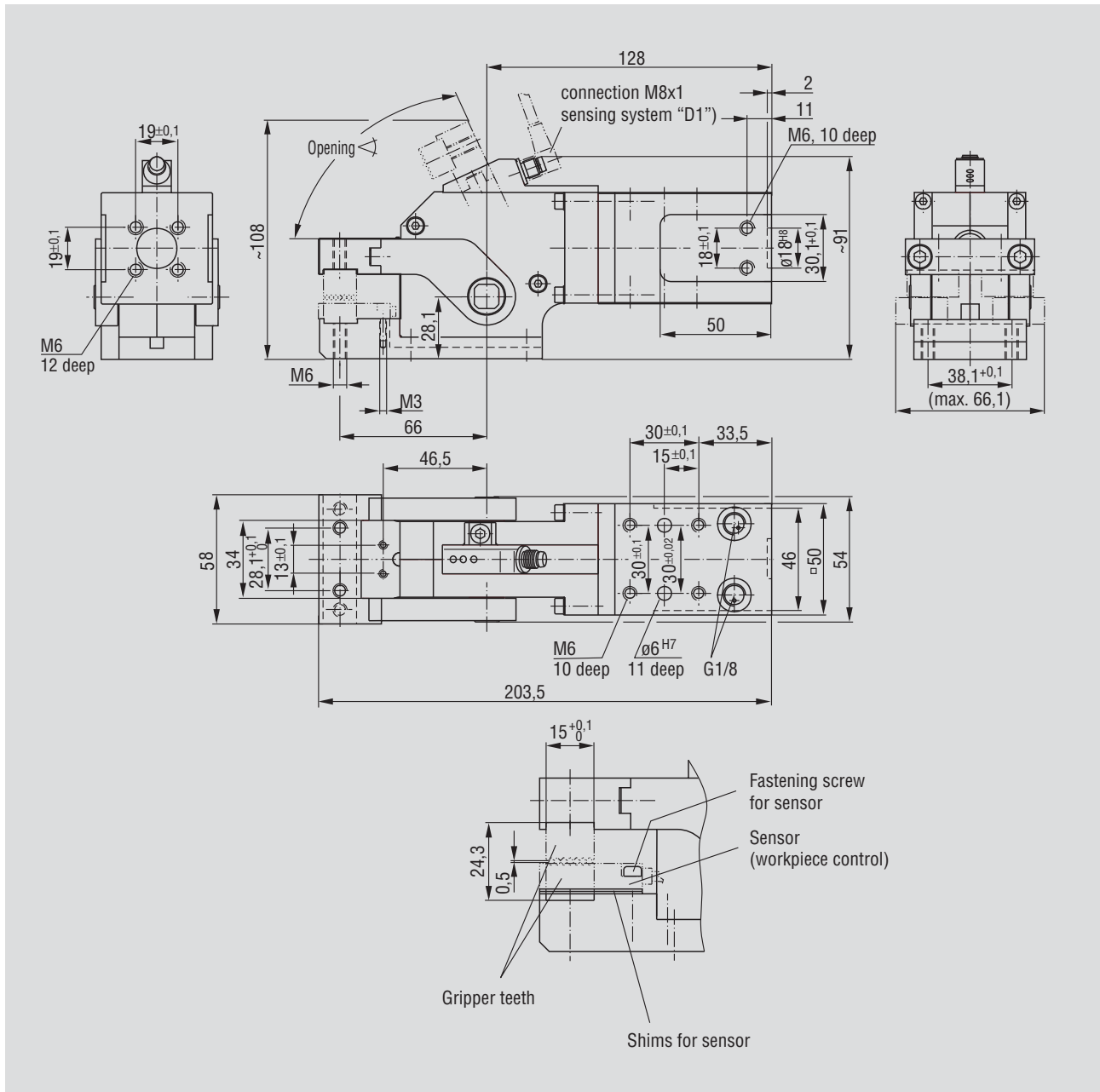
84G3-11D100000, gripper with end position sensing system



84G3-12D100000, gripper with end position sensing system

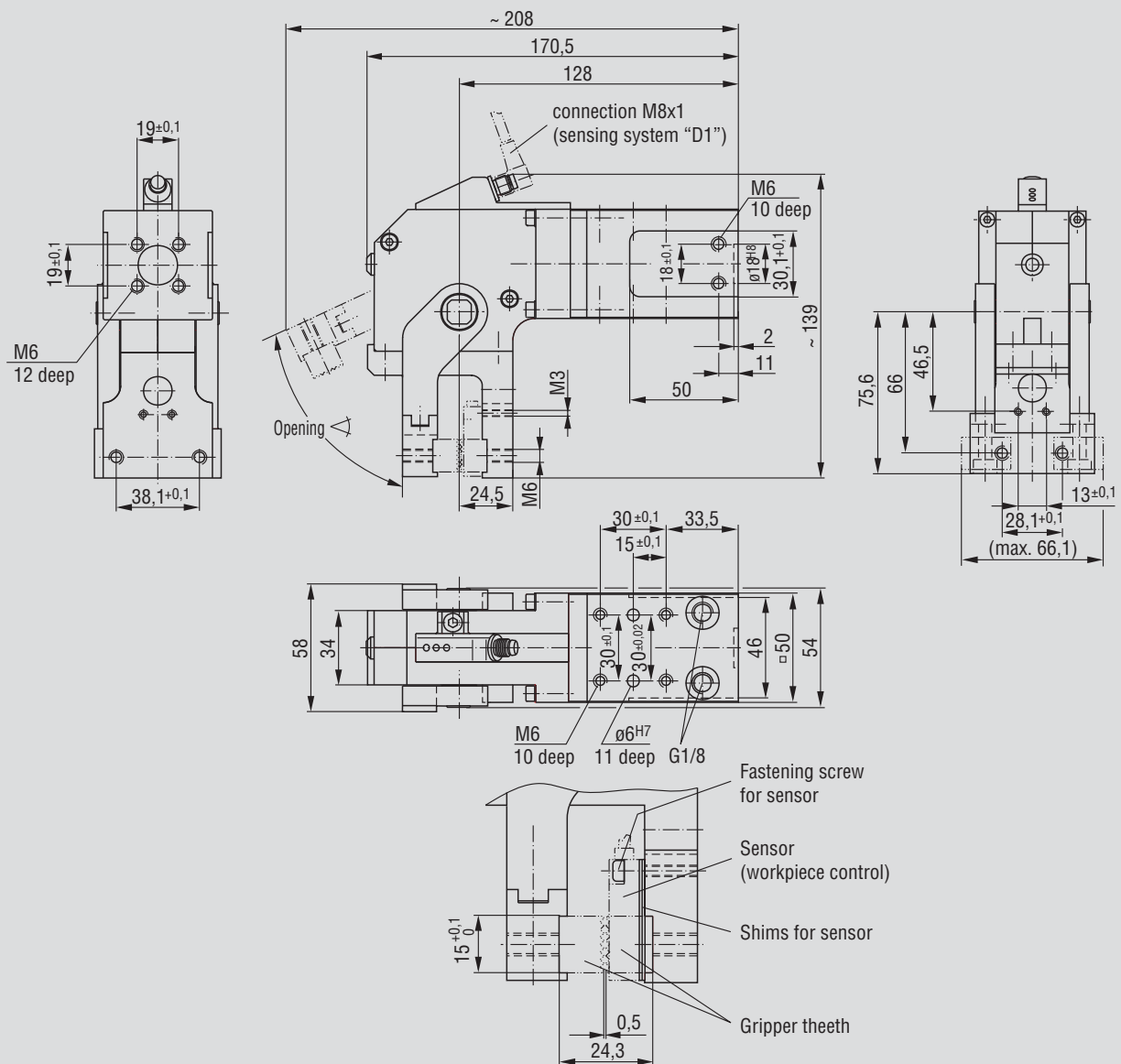
Model no. sensing C8 plug connection M8x1	Clamping position	Standard opening angle ~	Max. holding torque [Nm]	Clamping torque at 5 bar [Nm]	Max. operating pressure [bar]	Piston Ø [mm]	Air consumption per double stroke at 5 bar [dm³]	Compressed air connector G	Weight ~ [kg]
84G3-11D100000	horizontal	65°	180	55	6	32	0,8	G1/8	1,5
84G3-12D100000	vertical	65°	180	55	6	32	0,8	G1/8	1,5

84G3-11D100000



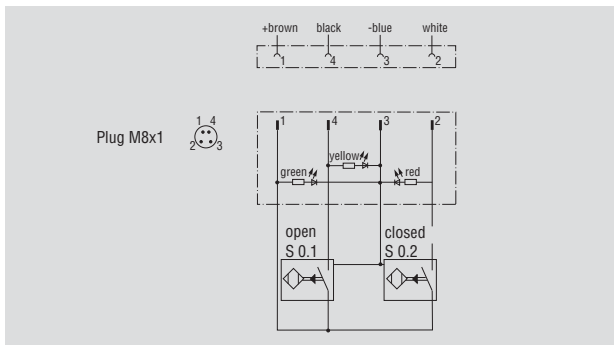
Operation with oil-free air is permissible.

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



Operation with oil-free air is permissible.

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



Wiring diagram of electrical sensing system

Sensing system immune to interference from d.c. arc welding and a.c. arc welding

Inductive version:

■ **D1**, inductive, plug connector M8x1

Pin assignment

Overview of accessories for 84G3-1 (Details see page 19.56)

without sensing system / empty case-cover 8AB-041-1	8MA-006-1	lower	upper
with sensing system 8EA-023-2 connector (M8x1)	8MA-017-1	8MF-032-1	
Sensing system	Adaptor	Gripper teeth / guide piece / gripper points	

Accessories

Specification	Order no. for	
	84G3-11D100000	84G3-12D100000
Shims for gripper teeth	8SB-003-1	8SB-003-1
Connector cable (1 connector socket & 5 m cable)		
Sensing D1		
Connector socket M8x1		
straight, 4-pin	8EL-009-1	8EL-009-1
Connector socket M8x1		
angular, 4-pin	8EL-007-1	8EL-007-1
Adaptor M8x1 to M12x1	8EL-008-1	8EL-008-1

Major spare parts

Specification	Order no. for	
	84G3-11D100000	84G3-12D100000
Cylinder	8PW-025-1	8PW-025-1
Seal kit	8PW-031-1-00	8PW-031-1-00
Sensing C8 (plug connector M8x1 fixed)	8EA-023-2	8EA-023-2

Series 84F35-1

■ Customer specific grippers

Models:

84F35-1100000

84F35-1200000 (old number 8015-4)

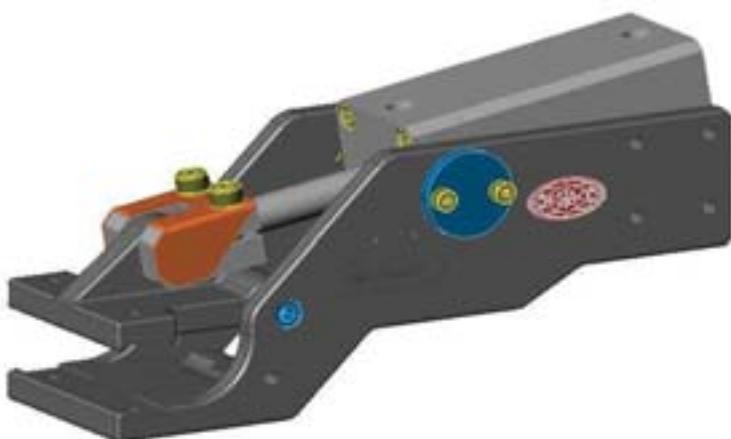
Application:

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



84F35-1100000

Total length ~ 210 mm



84F35-1200000

Total length ~ 230 mm

Accessories (Details see page 19.56)

Adaptors	8015-1-40
Gripper-teeth	8JZ-014-3
	8JZ-004-1

■ Customer-specific grippers

Models:

84H3-110000000

84H3-130000000

84H35-150000000 (old number 8003-1X1901)

Application:

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



84H3-110000000



84H3-130000000



84H35-150000000

Accessories (Details see page 19.56)

Gripper-teeth

8JZ-014-3

Series 84K3-1

■ Customer specific grippers

Models:

84K3-110000000 (old number 8003-1X13)

84K3-120000000 (old number 8003-1X1301)

84K35-1300000 (old number 8003-1X1302)

Application:

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



84K3-110000000



84K35-1300000



84K3-120000000

Accessories (Details see page 19.56)

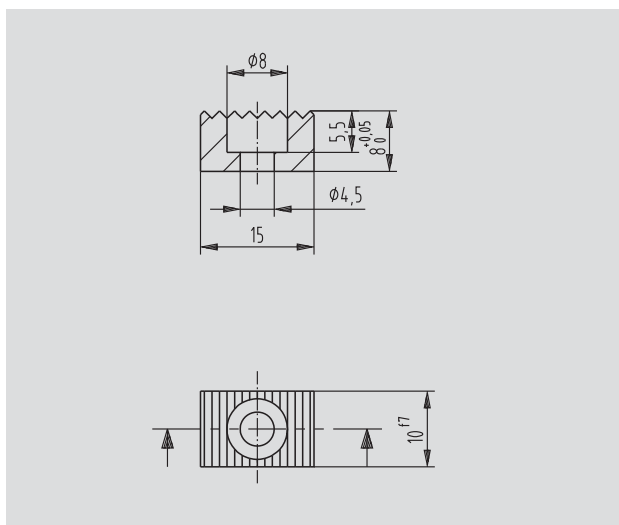
Gripper teeth steel	8JZ-014-3
Gripper teeth plastic	8JZ-021-1

[illegible]

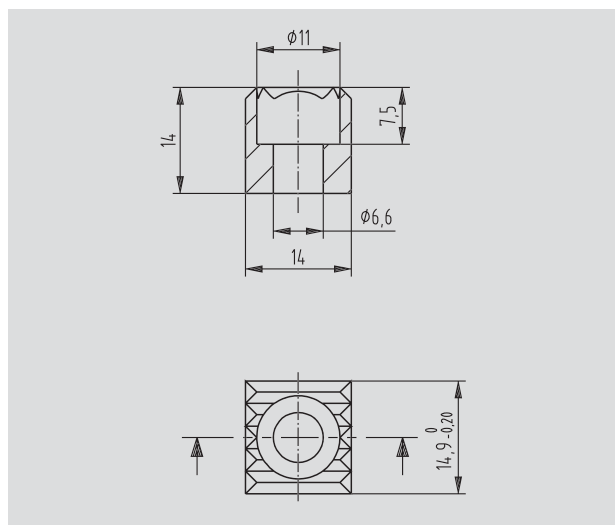
Series 84 – Accessories

■ Steel gripper teeth

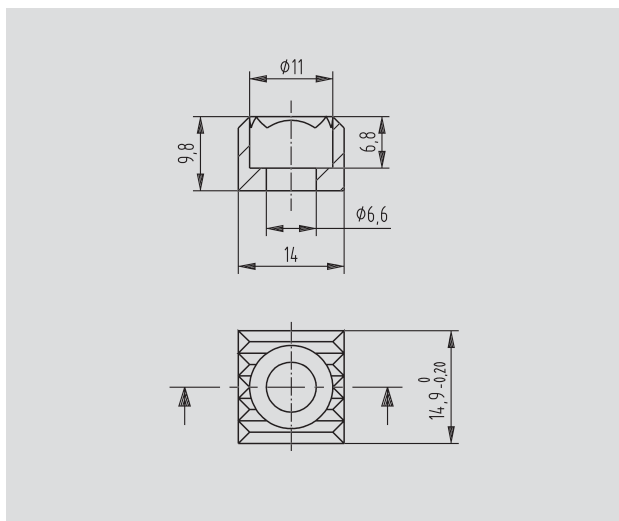
8010-1-30



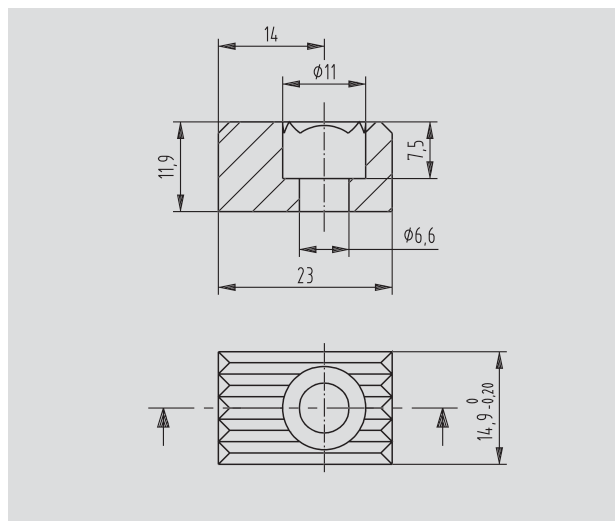
8JZ-001-1



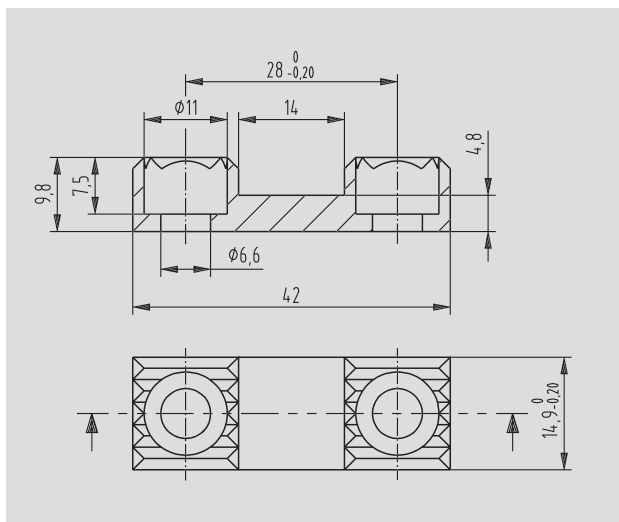
8JZ-003-1



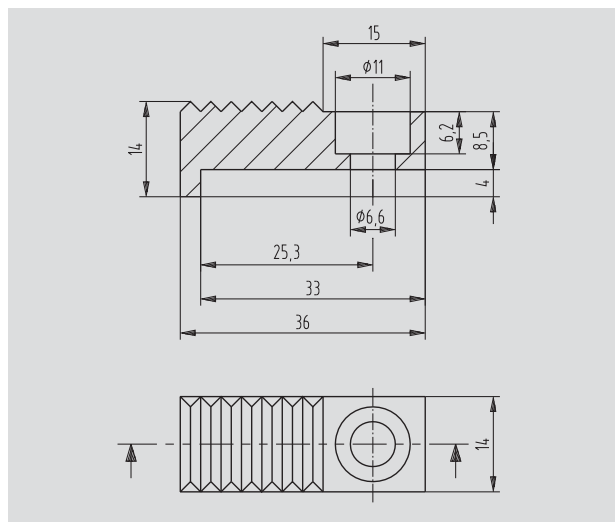
8JZ-004-1



8JZ-005-1

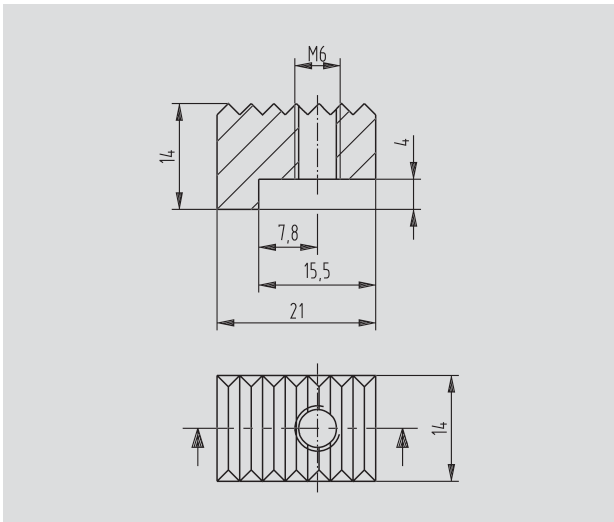


8JZ-008-1

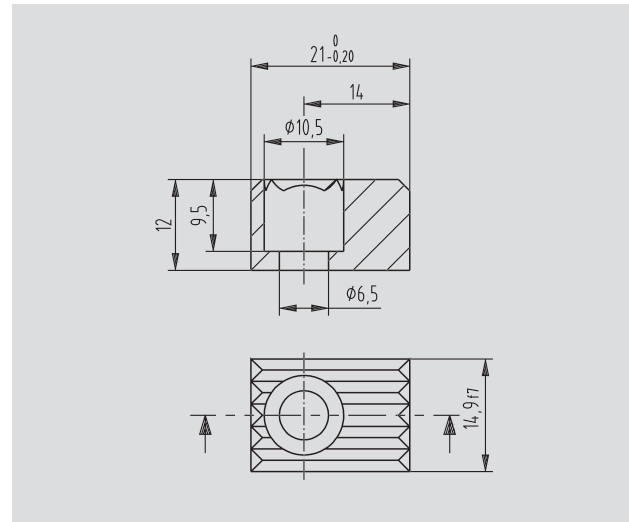


■ Steel gripper teeth

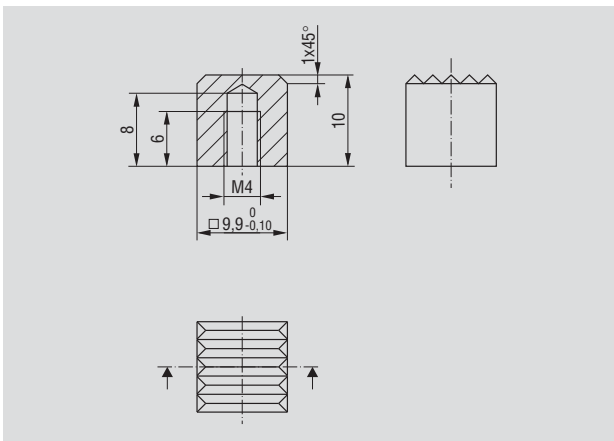
8JZ-009-1



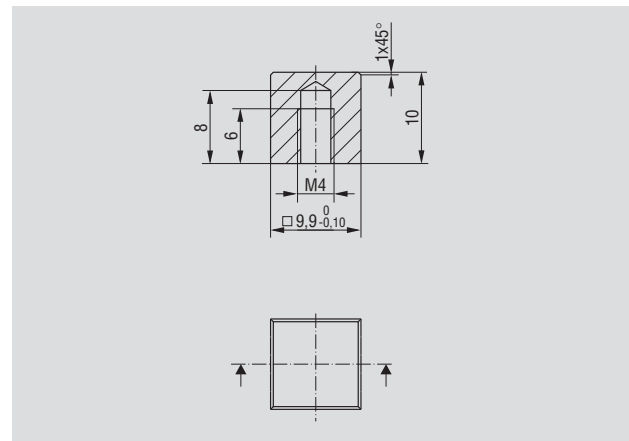
8JZ-014-3



8JZ-027-1



8JZ-028-1

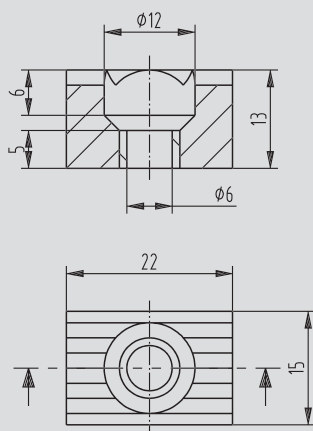


Series 84 – Accessories

■ Plastic gripper teeth

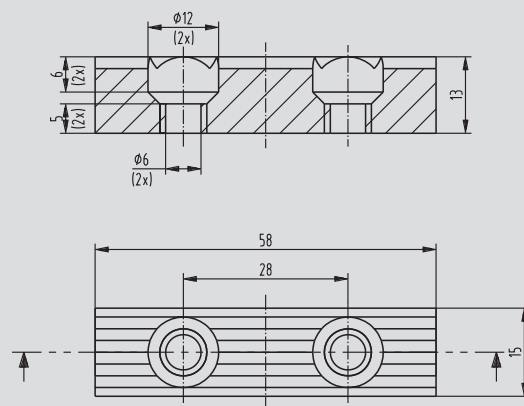
8JZ-021-1

90 Shore



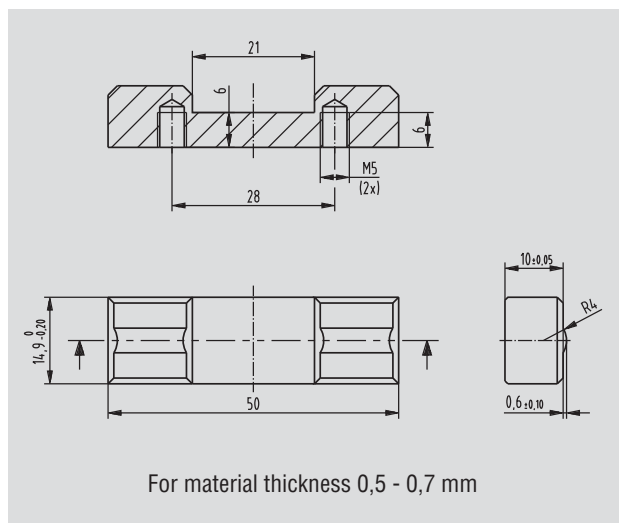
8JZ-023-1

90 Shore

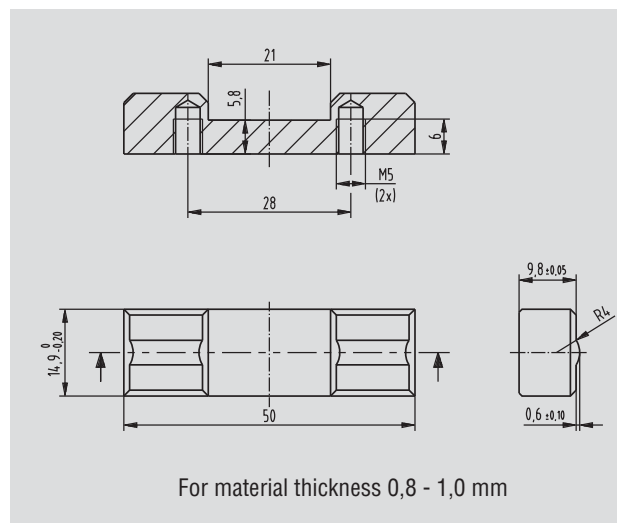


Crown teeth

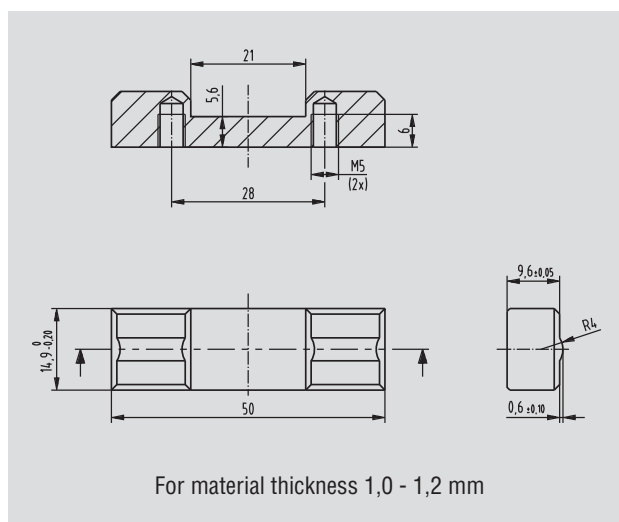
8JZ-015-1



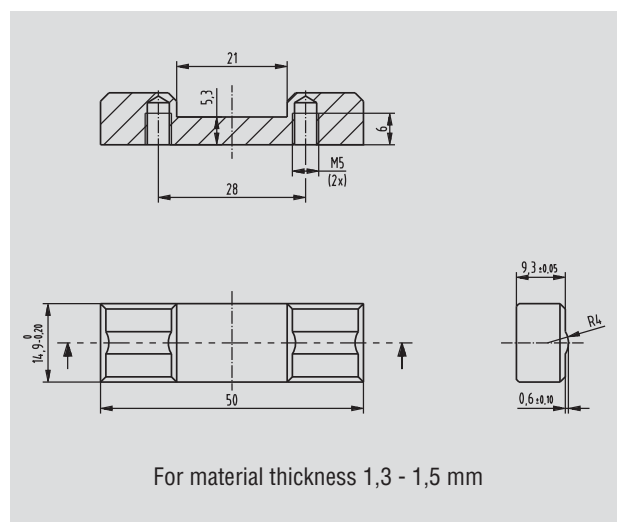
8JZ-016-1



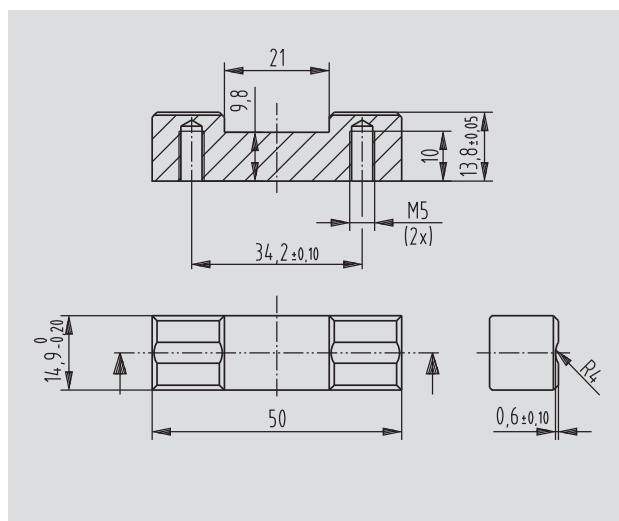
8JZ-017-1



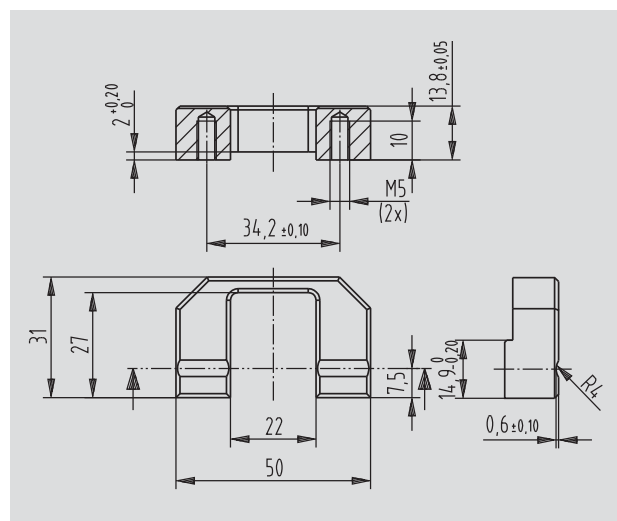
8JZ-018-1



8JZ-019-1



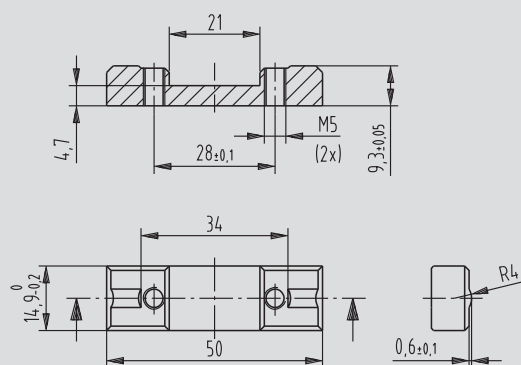
8JZ-020-2



Series 84 – Accessories

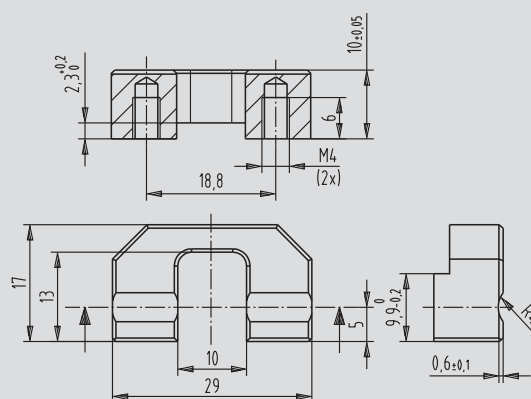
■ Crown teeth

8JZ-032-1

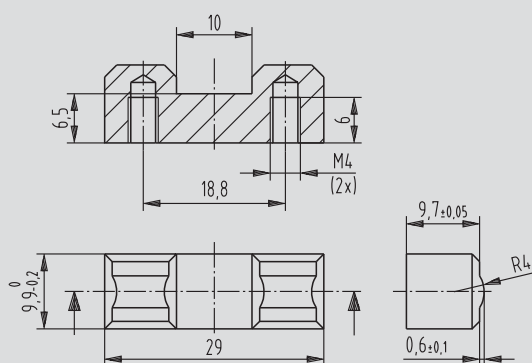


For material thickness 1,9 - 2,1 mm

8JZ-036-1

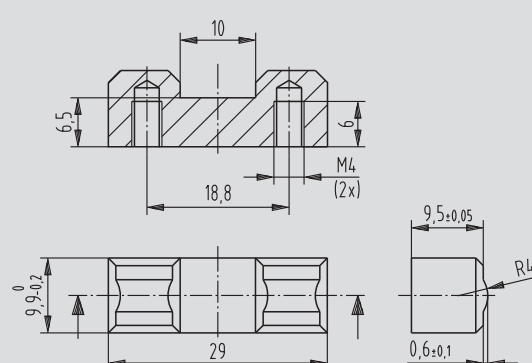


8JZ-037-1



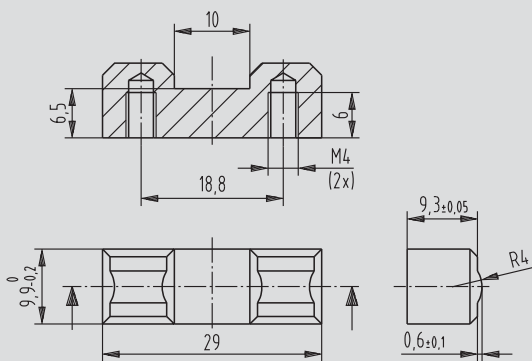
For material thickness 0,5 - 0,8 mm

8JZ-038-1



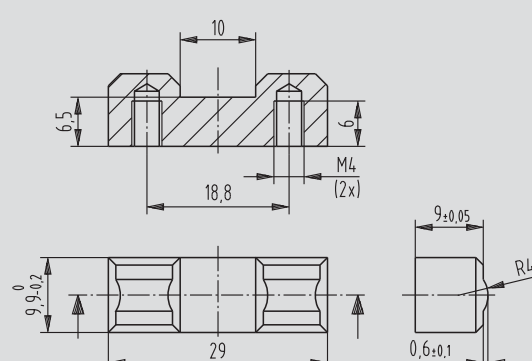
For material thickness 0,9 - 1,2 mm

8JZ-039-1



For material thickness 1,3 - 1,6 mm

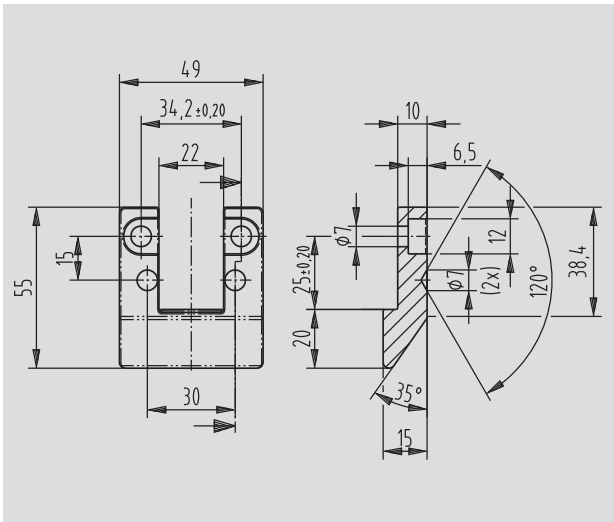
8JZ-040-1



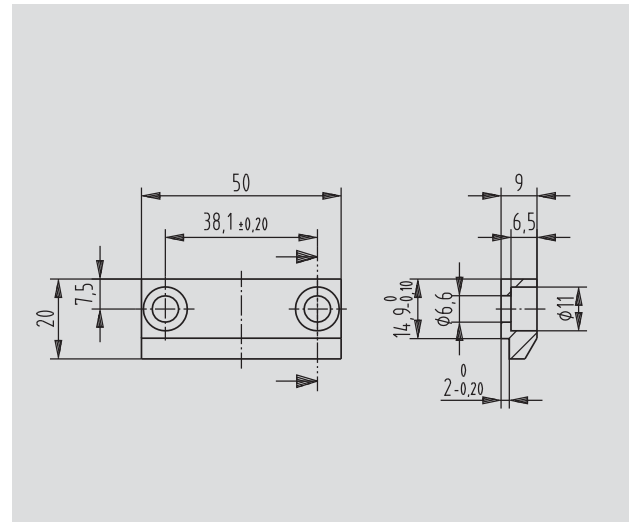
For material thickness 1,7 - 2,1 mm

■ Guide pieces

8MF-007-1

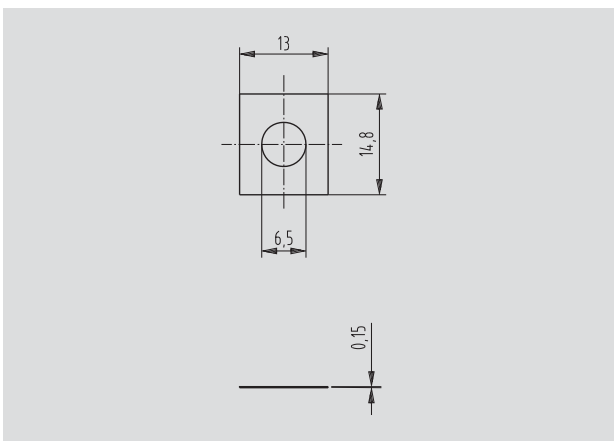


8MF-032-1

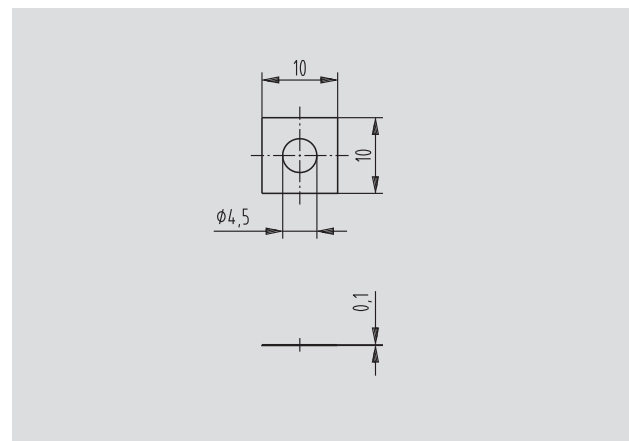


■ Shim plates

8SB-003-1

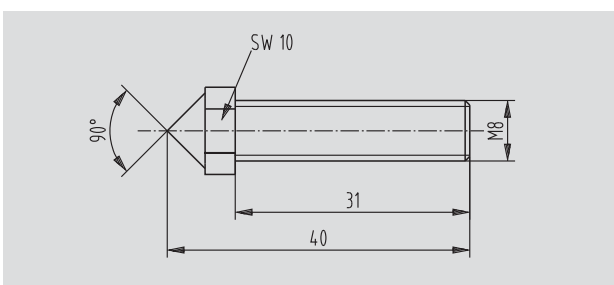


8SB-039-1

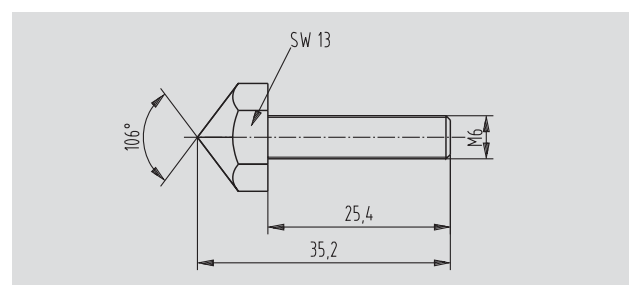


■ Gripper points

8JZ-010-1



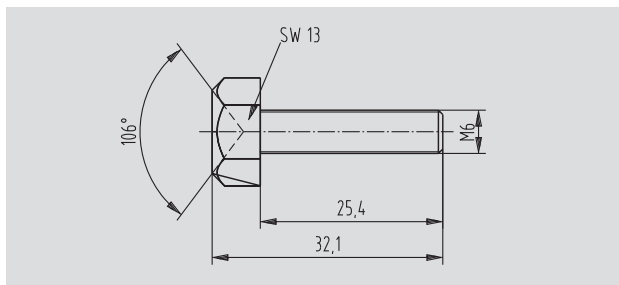
8MJ-1001-1



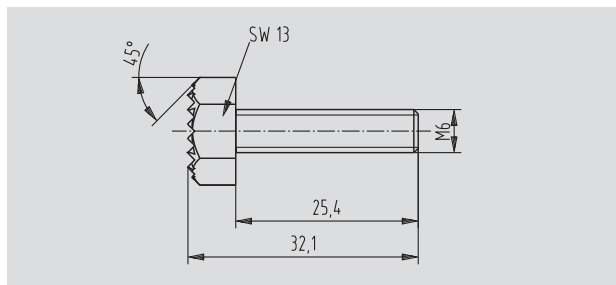
Series 84 – Accessories

■ Gripper points

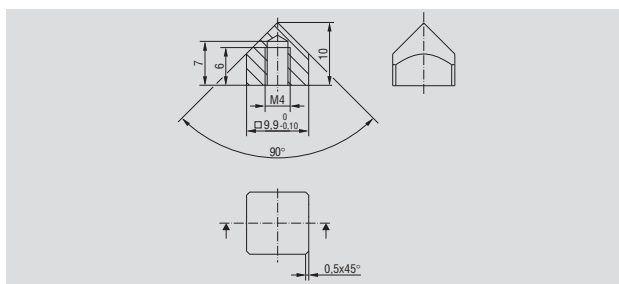
8MJ-1002-1



8MJ-1003-1

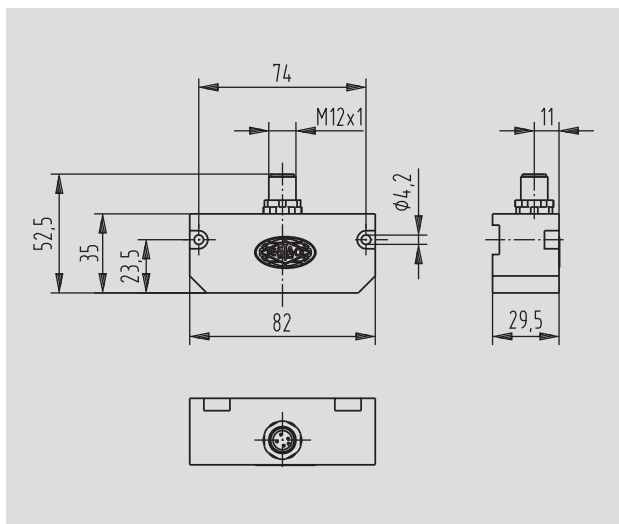


8JZ-029-1

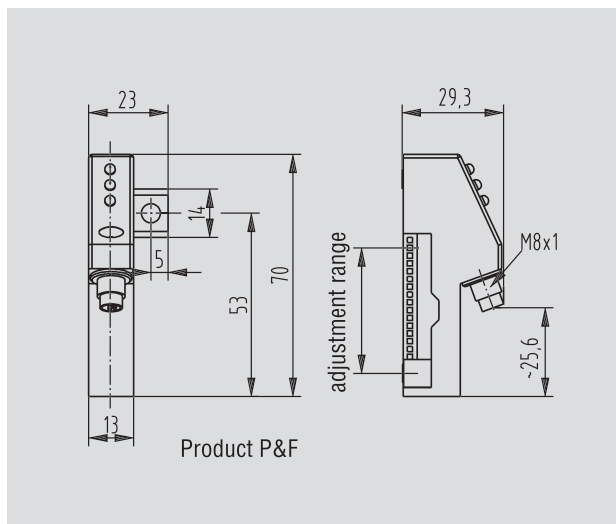


■ Sensors

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

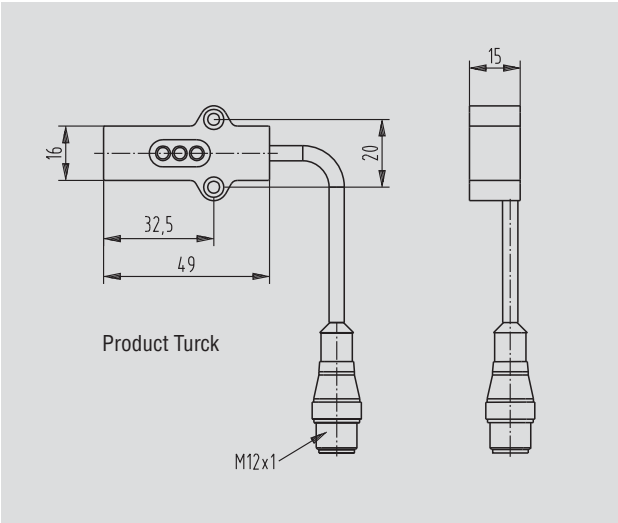


8EA-023-2

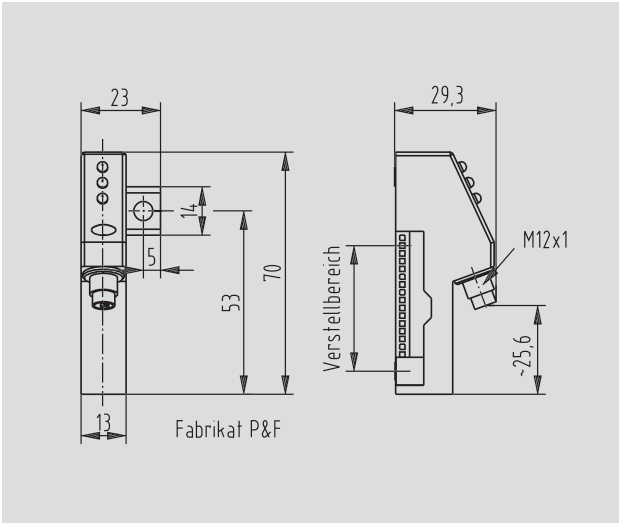


Sensors

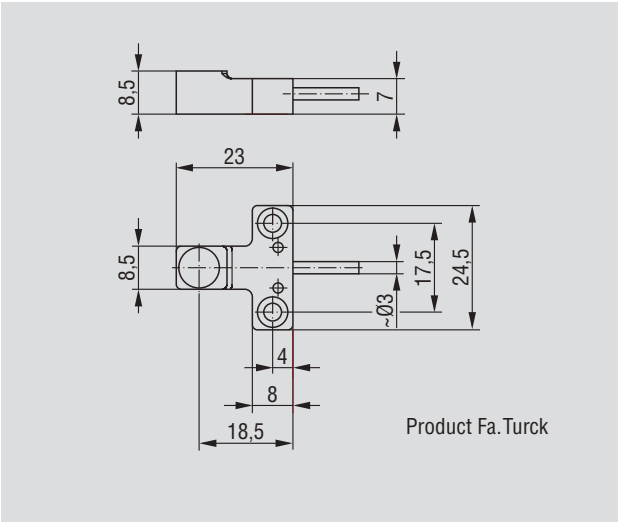
8EA-034-1



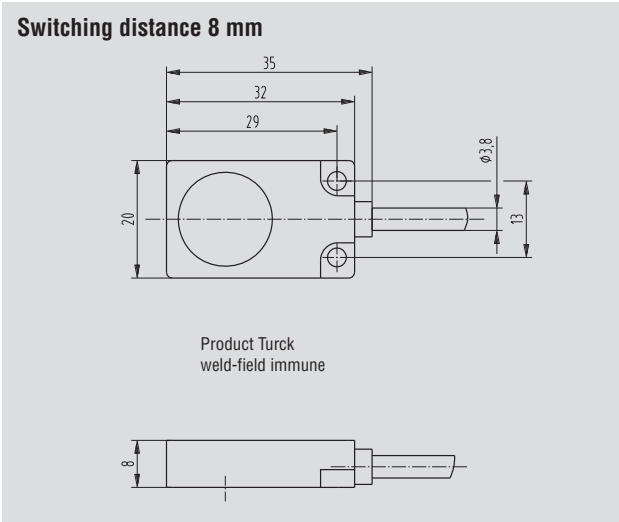
8EA-060-1



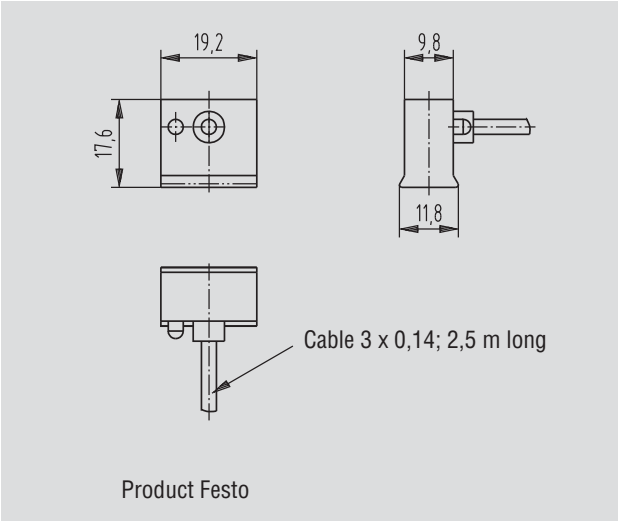
8EA-075-2



8EA-092-1



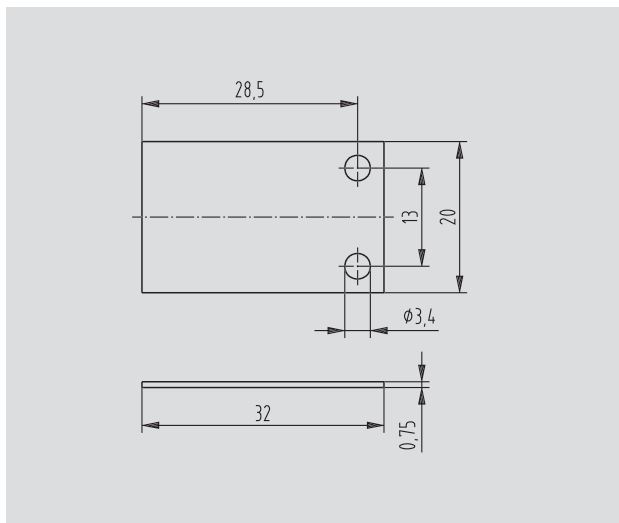
SME-3-LED



Series 84 – Accessories

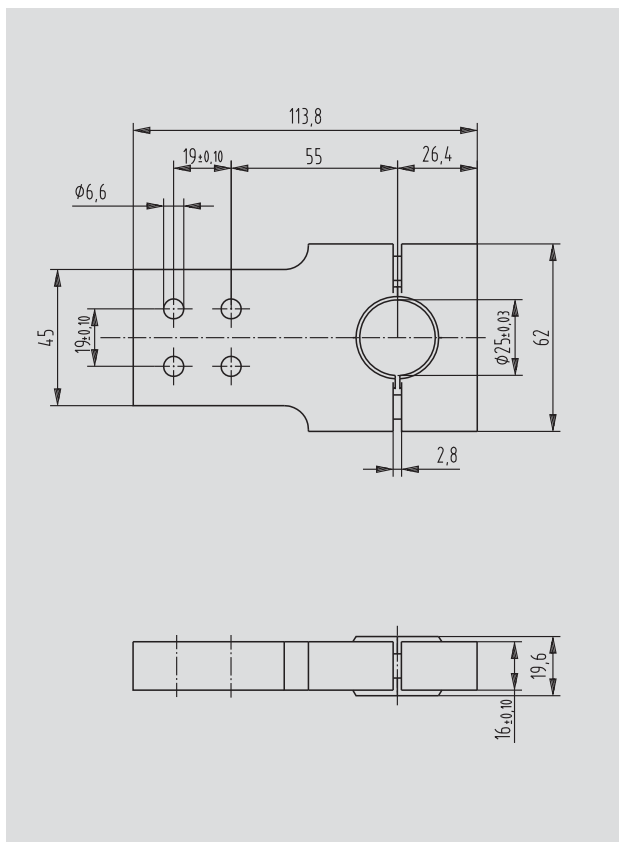
■ Shim for Sensor

8MB-003-1

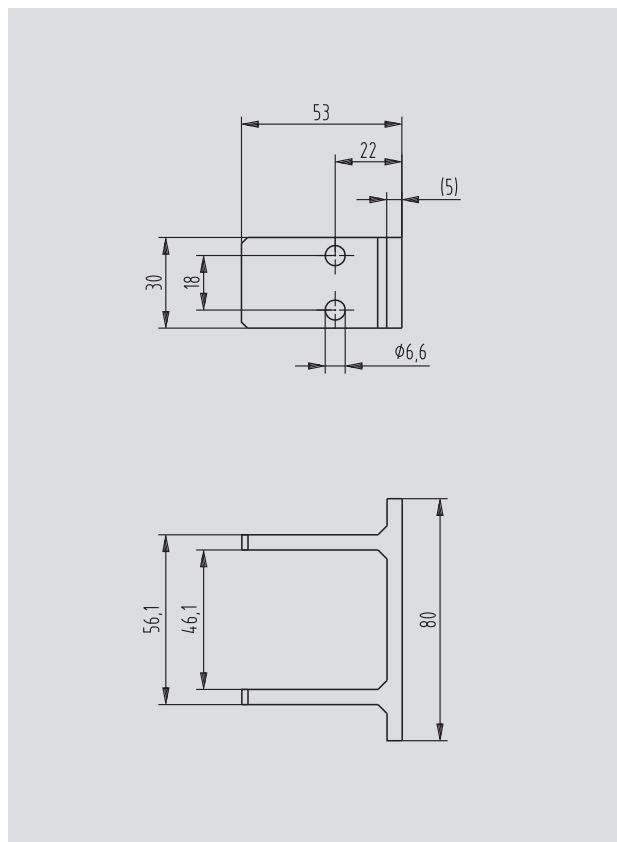


■ Adaptors

82ZB-007-1

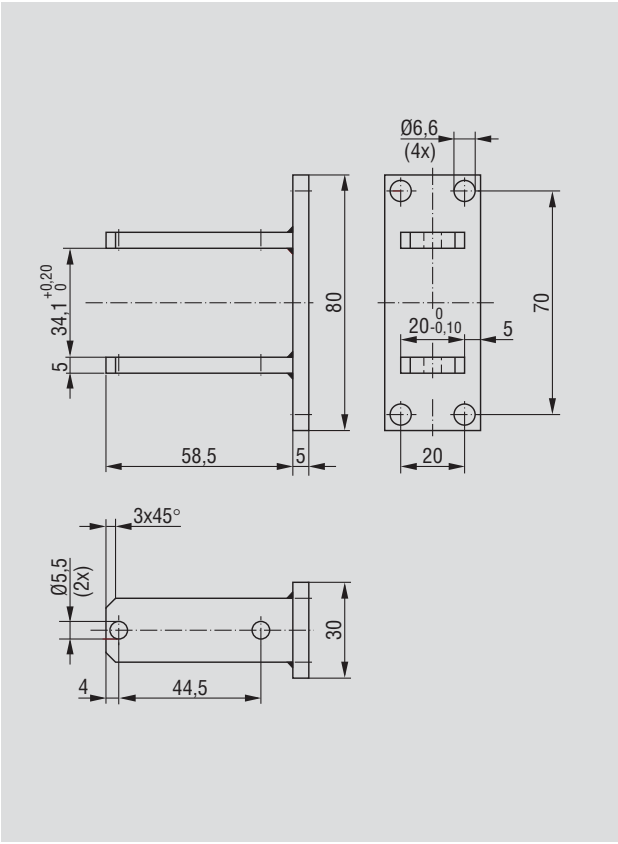


8MA-006-1

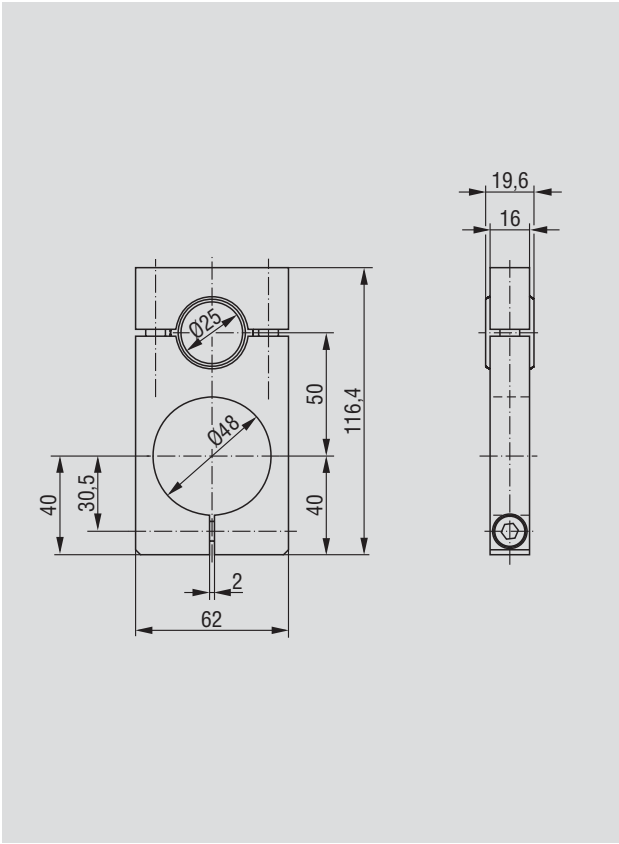


Adaptors

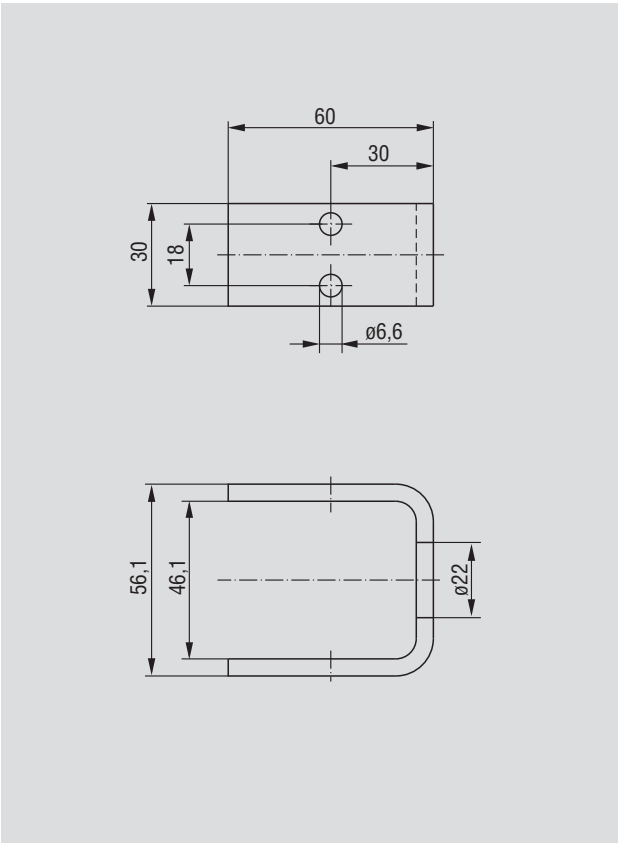
8MA-147-1



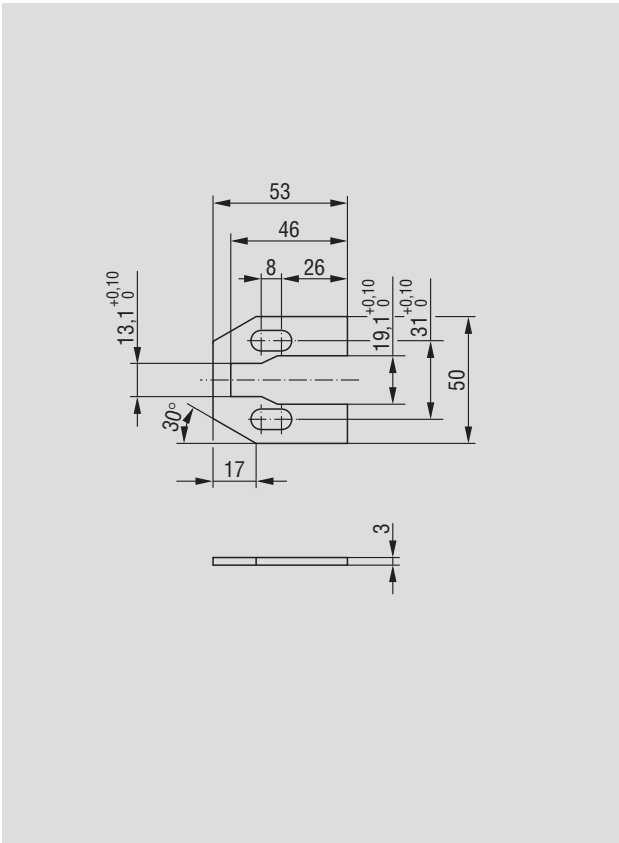
82ZB-025-1



8MA-017-1 (Customer specific)



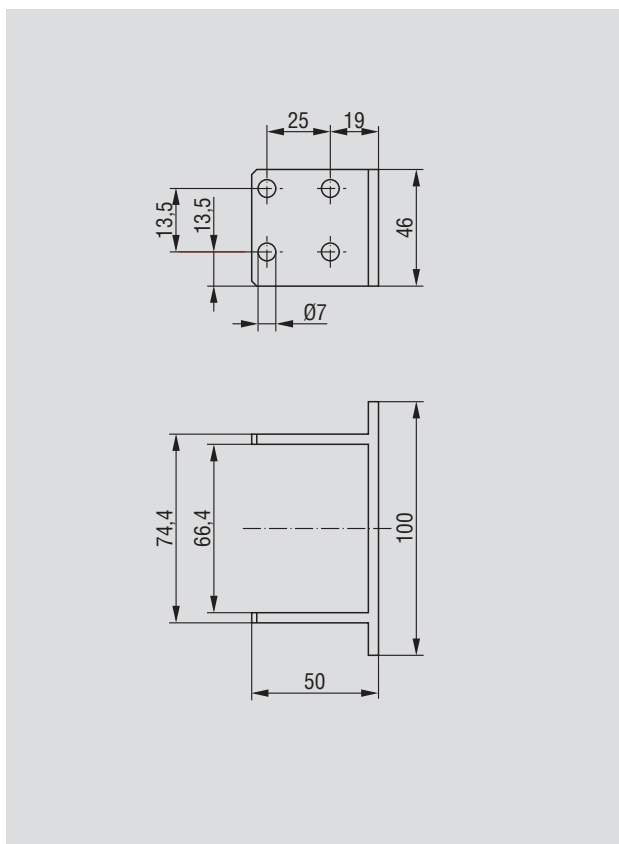
8MH-046-1



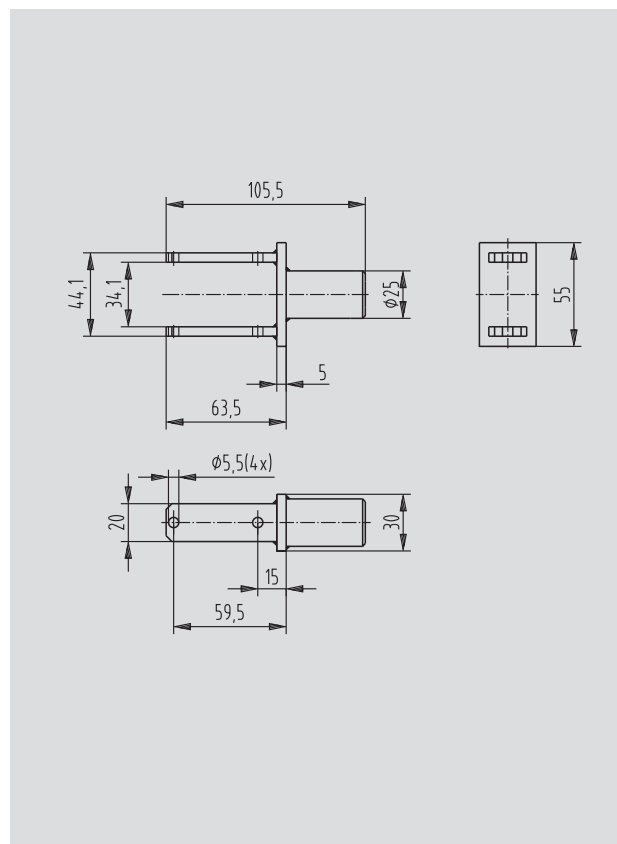
Series 84 – Accessories

Adaptors

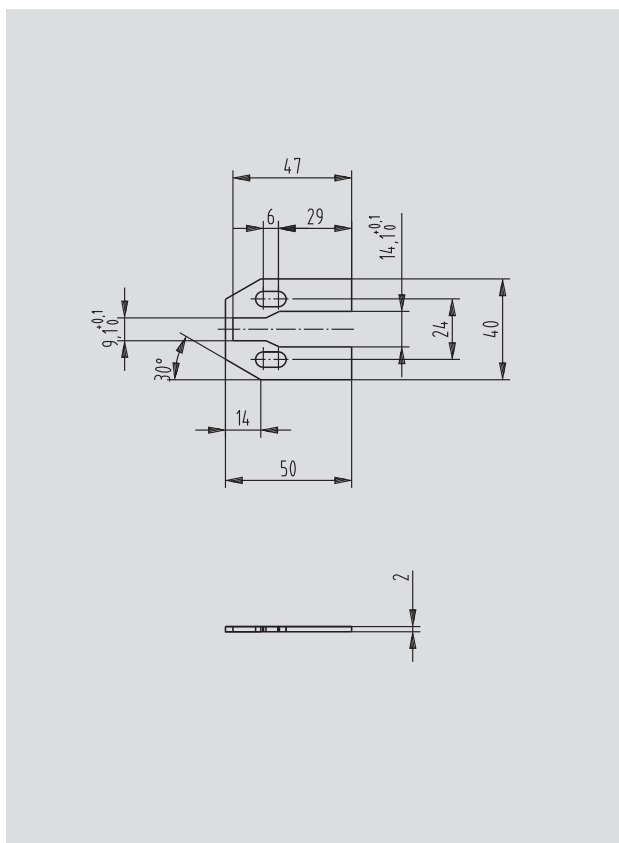
8015-1-40 (Customer specific)



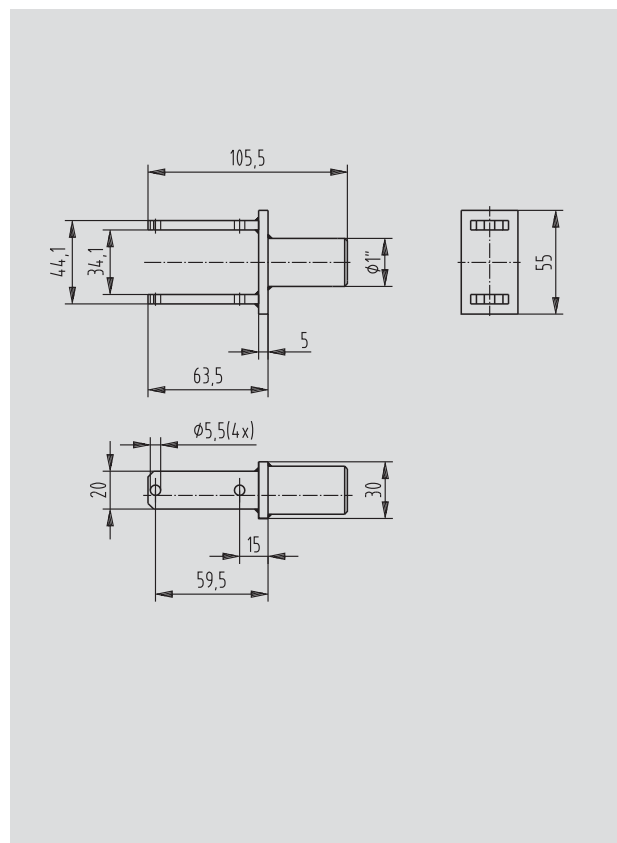
8MA-166-1



8MH-054-1



8MA-168-1



■ Adaptors

82ZB-033-1

