

# ALLMATIC CENTRO GRIPP – FOR CENTRAL GRIPPING

Our „all-rounder“ stands out for its superb precision and durability. Central clamping of workpiece – for conventional clamping and clamping of unmachined parts. Ideal for five-sided machining.





# ALLMATIC GRIPP – MECHANICAL CENTRO GRIPP VERSION

## Scope of application:

- Horizontal installation – suitable for vertical CNC milling machines
- Ideal for use on five-axis machining centres due to its compact design
- Depending on the clamping jaws, both pre-machined workpieces and unmachined parts can be clamped
- With support jaws, unmachined parts with varying types of flame-cut and sawn materials and even complex castings can be clamped safely and economically. Gripper studs suitable for materials of mechanical strength of up to approx. 1000 N/mm<sup>2</sup>.



## Product features:

- The centre is adjustable. The position of the workpiece stays within set boundaries.
- Repeating accuracy  $\pm 1/100$  mm for angled workpieces
- Guides ground, polished and paired
- Clamping range presetting via adjustment of clamping jaws along transverse slots of spindle nuts
- Moulding and clamping in a single step, directly in the work area – no auxiliary aids required
- Use with a torque wrench – max. 70 Nm
- Fully enclosed and maintenance-free high-pressure spindle – high chip protection, minimum cleaning requirements, constant clamping forces up to 40 kN

Robust and compact base made of GGG 60

M8 thread for workpiece stop

Inductively hardened, ground and polished guideway

Holes in the clamping shoulder for fastening to the machine table itself

Precision aligning slots and a positioning hole in the bottom surface for optimal alignment on the machine table

Outlet for coolant and chips

## Order No.

**jaw width 125: 6921538000055**

## Scope of delivery:

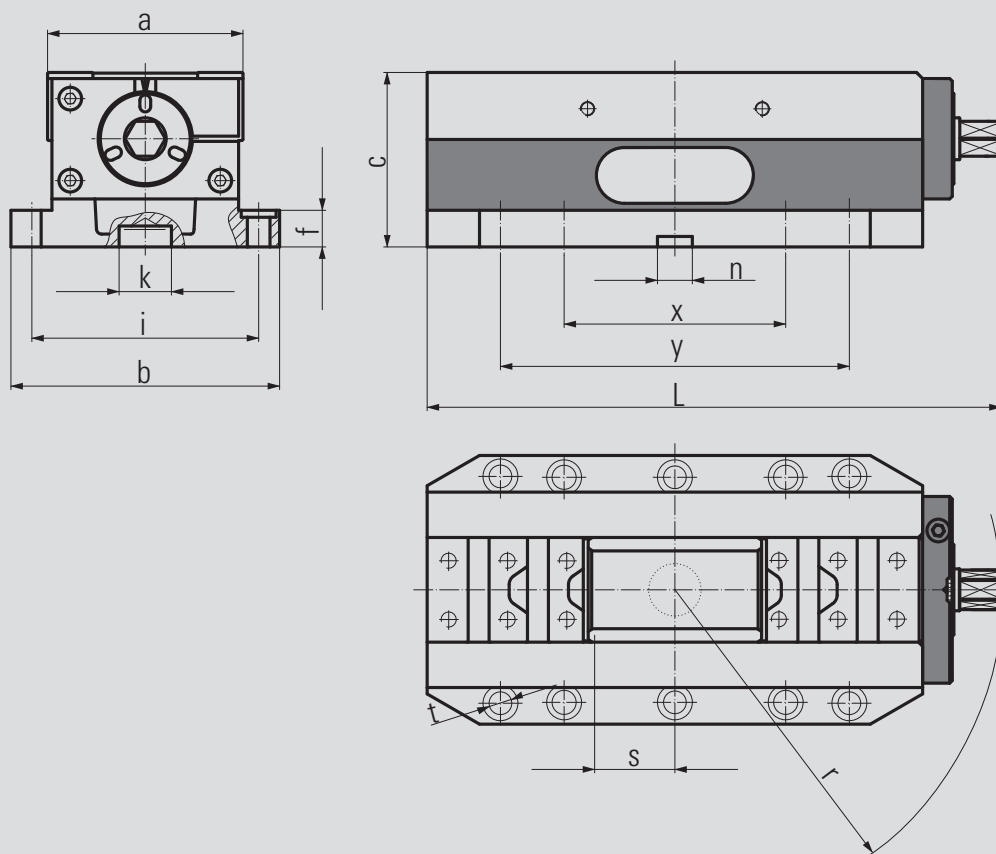
- 1 high-pressure vice without jaws
  - 2 combination wrenches
  - 6 fastening screws, M12 x 35 mm
  - 2 socket screw wrenches
  - 1 wrench socket
- (Please order clamping jaws separately)

## Note:

Delivery does not include a torque wrench (see accessories).

An overview of the clamping jaws and other accessories is given on the following pages.



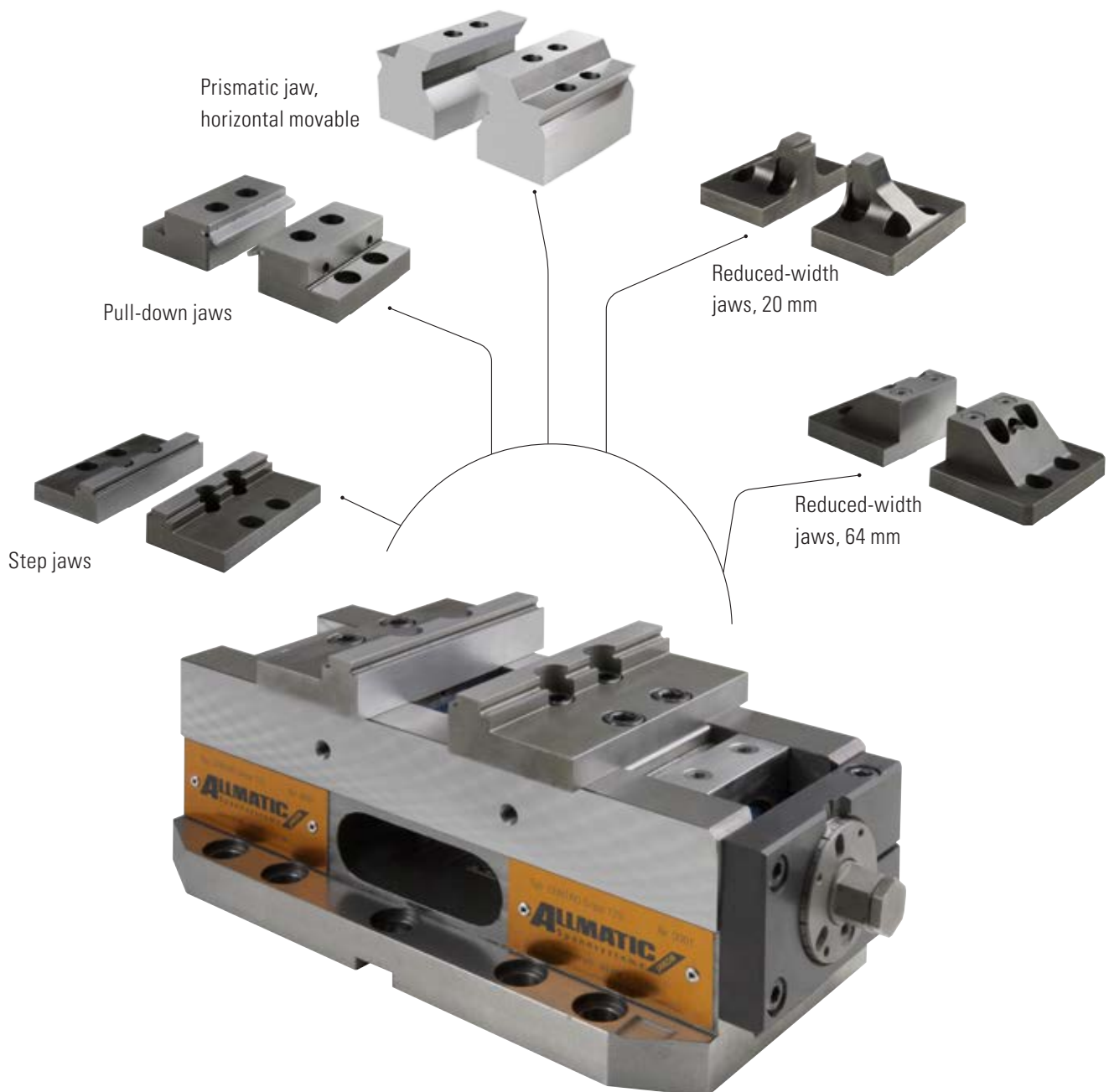


## Technical data

Jaw width	125	
Dimensions / tolerances in mm	a	112
	b	154
	c	100
	f	21
	i	129/130
	k	Ø 30 H8
	L	329
	n	20 H7
	r	182
	s (traverse)	46
	t	Ø 13
	y	200

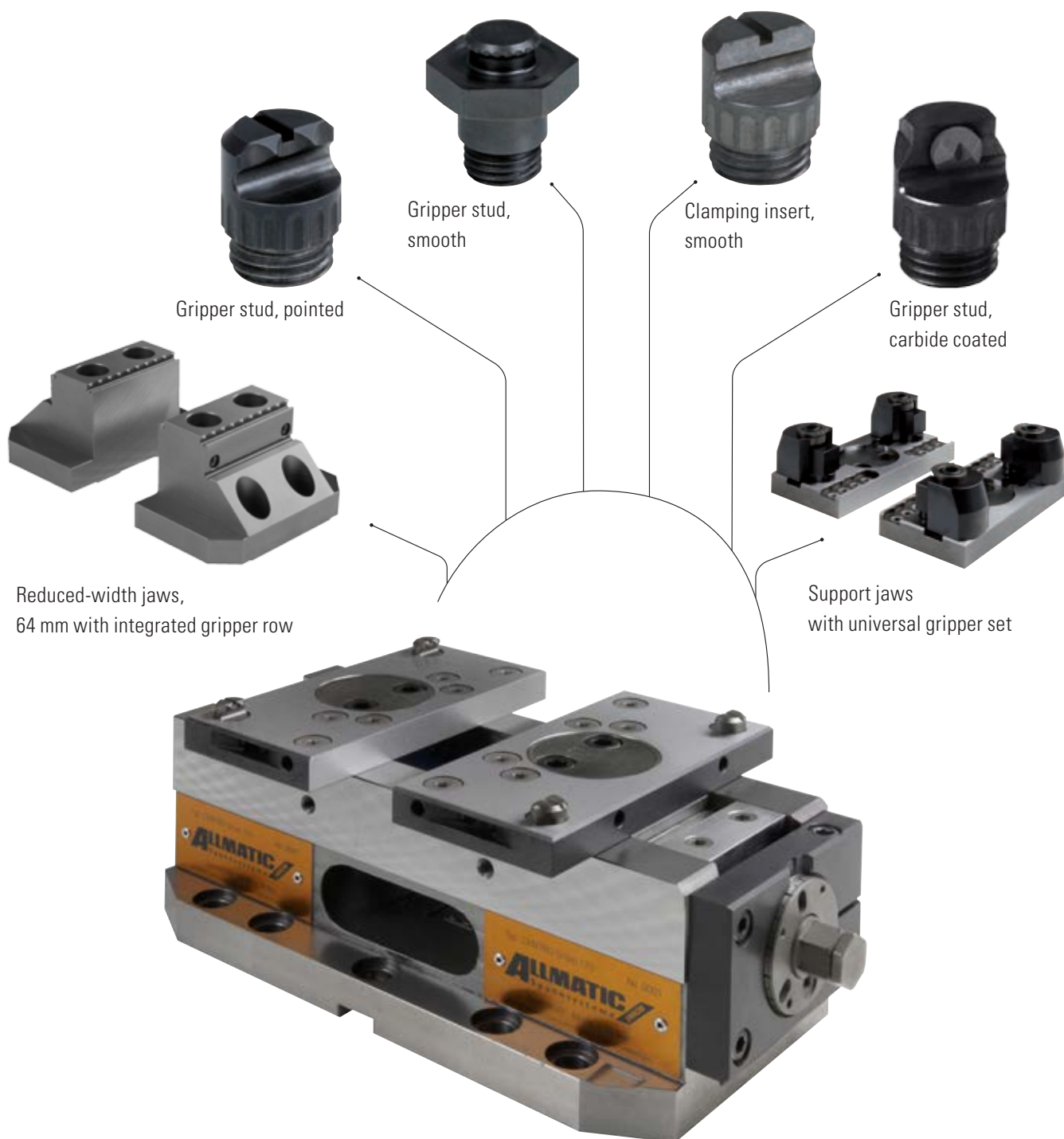
Jaw width	125
Max. torque in Nm	70
Max. clamping force in kN	40
Weight in kg	20,7

# ALLMATIC GRIPP – MECHANICAL/CENTRO GRIPP



## For conventional clamping of workpieces

On the following pages you will find a wide range of jaws suitable for clamping pre-machined workpieces.



### For clamping complex unmachined parts

Varying types of unmachined parts can be clamped quickly and securely using the support jaws and the reduced-width jaws. Jaws for gripper clamping can be found on the following pages.

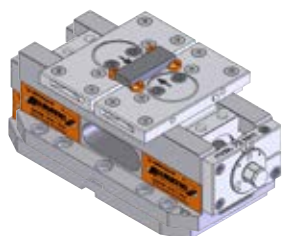
### Gripper clamping:

- Support jaws are used to mount different gripper studs (threaded gripper studs or universal gripper set)
- Gripper studs can be screwed onto grid plates in variable positions to securely clamp a wide variety of workpiece geometries
- Additional pivot function of the support jaws compensates for non-parallel clamping surfaces and is required to clamp uneven workpieces

# CLAMPING RANGES – CENTRO GRIPP

## Support jaws with gripper studs

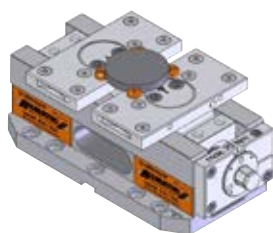
You can find the clamping ranges of the other jaws for conventional clamping on the following pages of accessories.



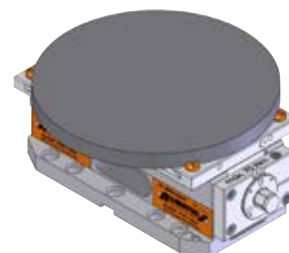
Min. clamping range	25 mm
Min. clamping width	73 mm



Max. clamping range	247 mm
Max. clamping width	at least 150 mm or larger

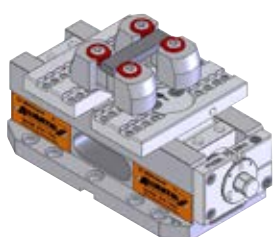


Min. clamping range	Ø 80 mm
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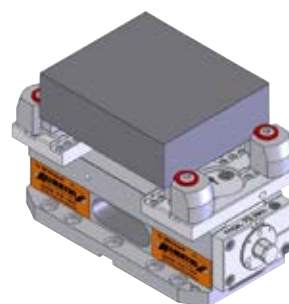


Max. clamping range	Ø 250 mm
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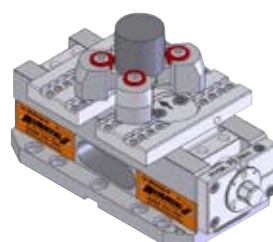
## Support jaws with universal gripper set



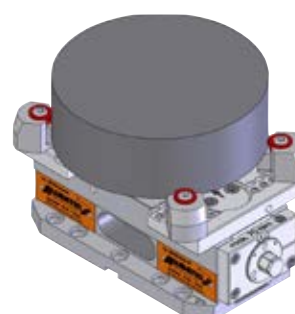
Min. clamping range	0 mm
Min. clamping width	90 mm



Max. clamping range	195 mm
Max. clamping width	at least 165 mm or larger

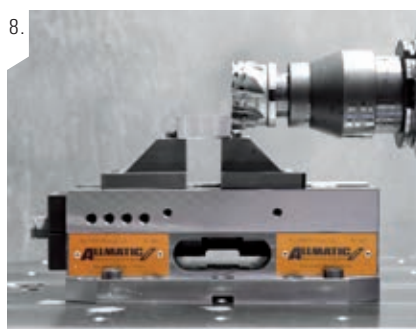
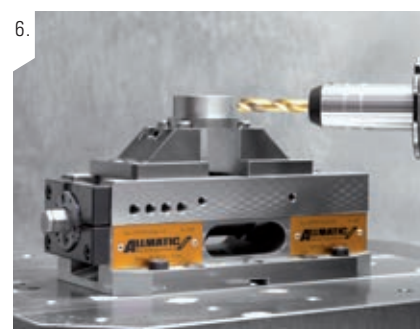
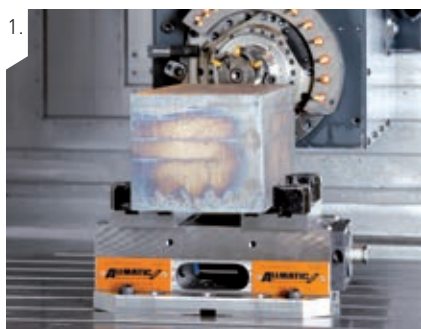


Min. clamping range	Ø 100 mm
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Max. clamping range	Ø 230 mm
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# APPLICATION EXAMPLES – CENTRO GRIPP



## Application examples

1. – 3. Flexible – from the unmachined part through to the finished product

Supports complete machining – from the reliable positive-locking clamping of unmachined parts by means of our tried and tested gripper technology through to the clamping of the machined part in smooth jaws or studs on modern CNC machines with just a single clamping device. Reliable clamping of large workpieces (even for heavy-duty machining work) thanks to the power spindle

4. Flexible gripper studs combined with pivot jaws enable reliable clamping of unmachined parts of very diverse geometries and materials

5. The concentric function enables clamping of unmachined parts of small dimensions. The clamping of unmachined parts is fast, simple and, above all, reliable thanks to the use of tried and tested components

6. – 7. Reliable positive-locking clamping with defined clamping force on clamping edge loss for five-sided machining, irrespective of whether the part is round or angular

8. – 9. Optimum accessibility to the workpiece from all five sides with standard tools

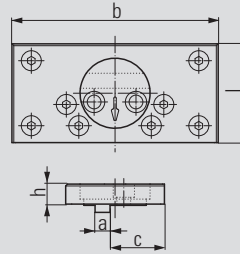


## ALLMATIC GRIPP – mechanical / CENTRO Gripp version (accessories)

### Support jaws for gripper studs



Order No. movable, pivot (1 piece): 6921884072042



- Material: hardened steel
- For mounting various studs (pointed/smooth)
- Front surface can be used as clamping surface (hardened, ground and polished)
- For clamping uneven workpieces
- To compensate for non-parallel clamping surfaces
- If using 2 pivot jaws, one pivot jaw must be manually aligned and blocked
- Studs (pointed/smooth) **not** included

Jaw width	125
Dimensions in mm	
a	12
b	165
c	43.5
h	16
l	79



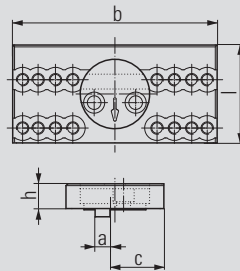
Dimensions of the individual items of the gripper set can be found at [www.allmatic.de](http://www.allmatic.de)

Please order gripper studs separately.

### Support jaws for universal gripper set



Order No. movable, pivot (1 piece): 6921884072242



- Material: hardened steel
- For mounting the universal gripper set
- Front surface can be used as clamping surface (hardened, ground and polished)
- For clamping uneven workpieces
- To compensate for non-parallel clamping surfaces
- If using 2 pivot jaws, one pivot jaw must be manually aligned and blocked
- Studs (pointed/smooth) **not** included

Type	125
Dimensions in mm	
a	12
b	165
c	35.5
h	20
l	79

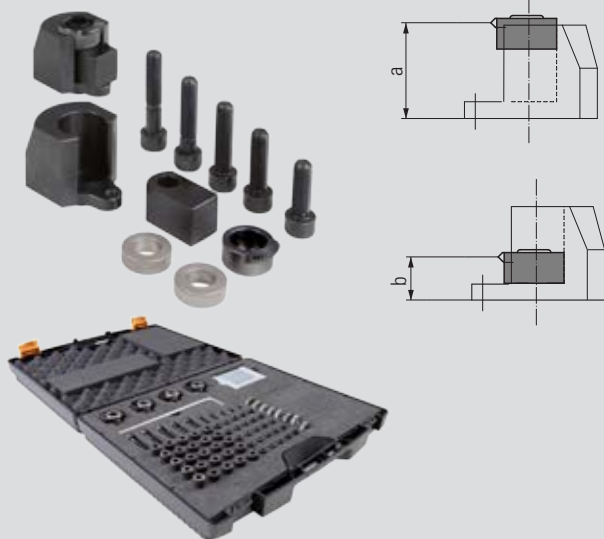


Dimensions of the individual items of the gripper set can be found at [www.allmatic.de](http://www.allmatic.de)

Please order universal gripper set separately.

## ALLMATIC GRIPP – mechanical / CENTRO Gripp version (accessories)

### Universal gripper set



Order no. 6921884027031

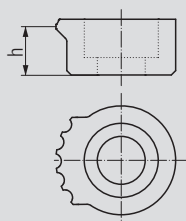
Jaw width	125	
Dimensions in mm	a	40
	b	18

- For clamping complex unmachined parts
- The individual elements of the universal gripper set can be reworked in order to vary both gripper height and support height of the workpiece

Comprising:

- 4 x gripper studs 6921884026000
- 4 x gripper stud mounts 6921884072000
- 4 x supports 6921884028000
- 8 x shims
- Support bolts
- M10 fastening bolts in various lengths
- M6 threaded pins in various lengths
- Socket screw wrench
- Storage case

### Gripper stud

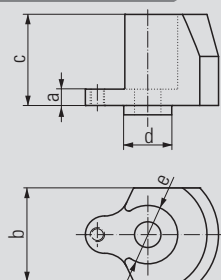


Order no. 6921884026000

Dimensions in mm	h	11
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- Gripper stud for universal gripper set

### Gripper stud mount

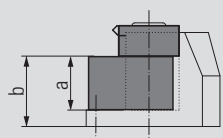
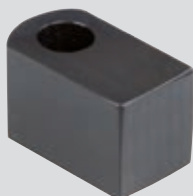


Order no. 6921884027000

Dimensions in mm	a	7
	b	40
	c	39
	d	Ø 20
	e	Ø 25

- Mount for gripper stud 6921884026000

### Support



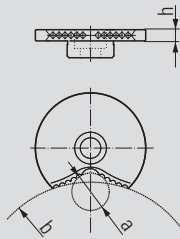
Order no. 6921884028000

Dimensions in mm	a	22
	b	29

- Support for universal gripper set

## ALLMATIC GRIPP – mechanical / CENTRO Gripp version (accessories)

### Prismatic gripper

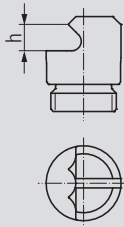


Order no. 6921884029031

Dimensions in mm		
a	Ø 20	
b	Ø 120	
h	6	

- Replaces gripper stud 2306/001 in the universal gripper set
- Special shape distributes the applied clamping force – particularly advantageous for clamping workpieces that require fits to be made

### Gripper stud, pointed

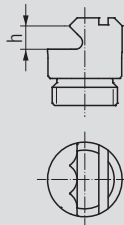


Order no. 6921884036000

Dimensions in mm		
h	5.5	

- For clamping unmachined parts
- Minimum clamping edge loss
- Clamping height: adjustable from 4.5 to 6.0 mm

### Gripper stud, low-level

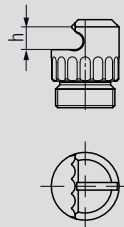


Order no. 6921884036100

Dimensions in mm		
h	5	

- For clamping unmachined parts
- Minimum clamping edge loss
- Clamping height: adjustable from 3.0 to 4.5 mm

### Gripper stud, four-point

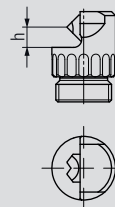


Order no. 6921884036500

Dimensions in mm		
h	5,4	

- For clamping unmachined parts
- For soft materials like aluminum
- Minimum clamping edge loss
- Clamping height: adjustable from 4.5 mm to 6.0 mm

### Gripper stud, carbide coated



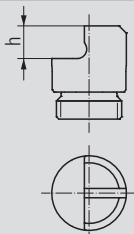
Order no. 6921884036841

Dimensions in mm		
h	5,1	

- For clamping unmachined parts
- For high quality coated materials and flame cuts
- Minimum clamping edge loss
- Clamping height: adjustable from 4.2 mm to 5.7 mm

## ALLMATIC GRIPP – mechanical / CENTRO Gripp version (accessories)

### Clamping insert, smooth

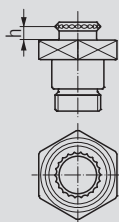


Order no. 6921884037000

Dimensions in mm	h	7
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- With carbide coating for clamping pre-machined or hardened workpieces

### Gripper stud, round



Order no. 6921884038000

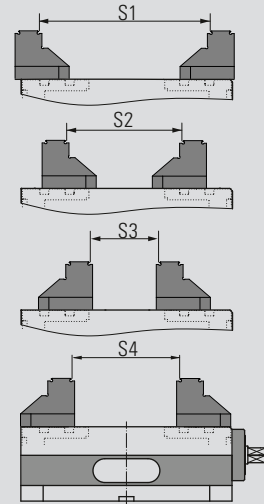
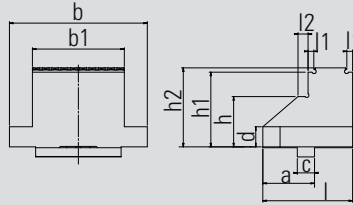
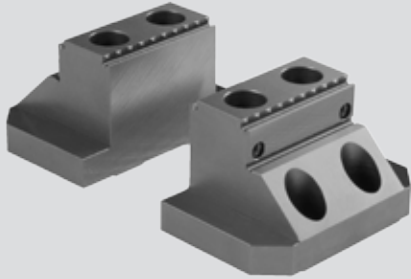
Dimensions in mm	h	4
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- For clamping unmachined parts
- For through-drilling close to the edge
- Offers 6 mm space below workpiece

**ALLMATIC GRIPP – mechanical / CENTRO Gripp version (accessories)**

**Jaw 64 mm, with integrated gripper row**

Order no. movable: 6921534036031



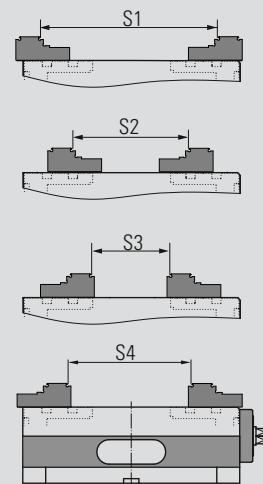
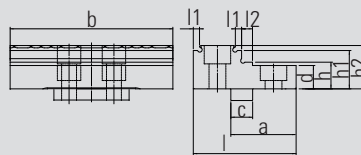
- For rectangular workpieces (sawn material)  $\leq 0.5$  mm
- Rigid design to prevent vibrations when parts are clamped upright
- Additional clamping surfaces, ground on both sides
- For five-sided machining, ensuring best possible accessibility to the workpiece
- Positive locking through penetration of the centres into the material
- Minimal lost clamping margin of approx. 3 mm.
- Suitable for material strength of up to 1000 N/mm<sup>2</sup>

Jaw width		125
Dimen- sions in mm	a	36
	b	96
	b1	64
	c	12
	d	14
	h	35
	h1	52
	h2	55
	l	62,5
	l1	4
l2	7	

Clamping range S1	146 - 229
Clamping range S2	78 - 161
Clamping range S3	10 - 93
Clamping range S4	78 - 161

**Jaw with integrated gripper row**

Order no. movable: 6921534036931



- For rectangular workpieces (sawn material)  $\leq 0.5$  mm
- Rigid design to prevent vibrations when parts are clamped upright
- Additional clamping surfaces, ground on both sides
- For five-sided machining, ensuring best possible accessibility to the workpiece
- Positive locking through penetration of the centres into the material
- Minimal lost clamping margin of approx. 4 mm.
- Suitable for material strength of up to 1000 N/mm<sup>2</sup>

Jaw width		125
Dimen- sions in mm	a	34
	b	118
	c	12
	d	14
	h	16
	h1	23
	h2	26
	l	60,6
	l1	4
	l2	7

Clamping range S1	146 - 229
Clamping range S2	78 - 161
Clamping range S3	10 - 93
Clamping range S4	78 - 161

## ALLMATIC GRIPP – mechanical / CENTRO Gripp version (accessories)

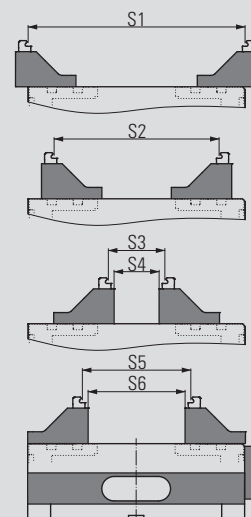
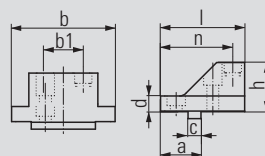
### Reduced-width jaws 64 mm



- Material: hardened steel
- Allows unhindered access to the workpiece, even with short tools
- For clamping small to medium-sized workpieces
- The clamping of unmachined parts (incl. round material) is supported via 2 adjustable gripper studs in each case
- Front surface can be used as clamping surface (hardened, ground and polished)
- Gripper Studs (pointed/smooth) **not** included

Please order gripper studs separately

Order no. movable: 6921884040040



Jaw width	125	
Dimensions in mm	a	37.5
	b	96
	b1	37
	c	12
	d	14
	h	45
	l	79
	n	67

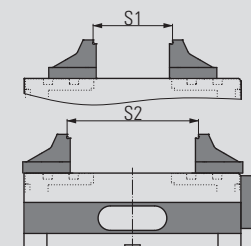
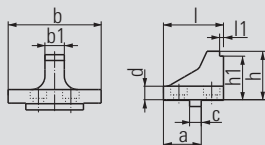
Clamping range S1	196 – 284
Clamping range S2	128 – 216
Clamping range S3	21 – 74
Clamping range S4	0 – 59
Clamping range S5	54 – 142
Clamping range S6	41 – 127

### Reduced-width jaws 20 mm



- Material: hardened steel
- For clamping parallel pre-machined small workpieces
- Further enhanced accessibility to the workpiece thanks to slim, tall shape – also optimal for short tools
- Front surface (step) additionally carbide-coated to ensure secure clamping – this increases the holding force by a factor of at least 2 compared to smooth clamping surfaces

Order no. movable: 6921884041041



Jaw width	125	
Dimensions in mm	a	39
	b	96
	b1	20
	c	12
	d	14
	h	50
	h1	45
	l	62
	l1	4

Clamping range S1	19 – 104
Clamping range S2	86 – 172

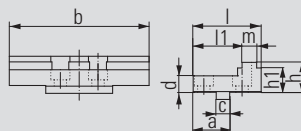
## ALLMATIC GRIPP – mechanical / CENTRO Gripp version (accessories)

### Step jaws, carbide-coated

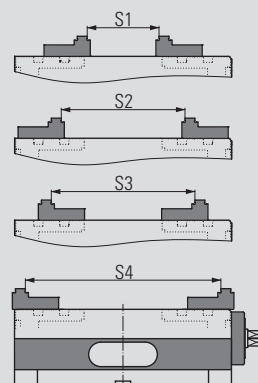


- Material: hardened steel
- For clamping parallel pre-machined workpieces
- Clamping surfaces (step) additionally carbide-coated to ensure secure clamping – this increases the holding force by a factor of at least 2 compared to smooth clamping surface

Order no. movable: 6921884002041



Jaw width	125	
Dimensions in mm	a	32.5
	b	124.4
	c	12
	d	14
	h	26
	h1	21
	l	60.5
	l1	43.5
m	13	



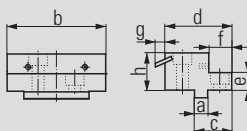
Clamping range S1	9 – 94
Clamping range S2	76 – 162
Clamping range S3	102 – 188
Clamping range S4	170 – 256

### Universal pull-down jaws

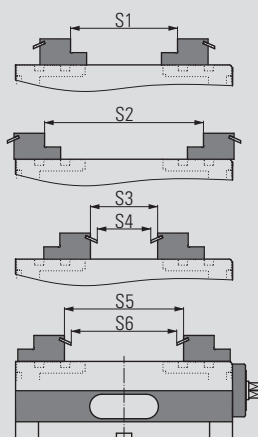


- Material: hardened steel
- Reduced-width jaws 90 mm
- Ground and polished clamping surfaces
- Pull-down with ground and polished spring leaves for machined and unmachined clamping surfaces
- 1-Click spring leaves
- High clamping accuracy for parallel and accurate angle machining

Order no. movable: 6921884102031



Jaw width	125	
Dimensions in mm	a	12
	b	90
	c	34
	d	61
	e	16
	f	21
	g	8.8
	h	34



Clamping range S1	54 – 140
Clamping range S2	122 – 208
Clamping range S3	0 – 88
Clamping range S4	0 – 72
Clamping range S5	70 – 156
Clamping range S6	54 – 138

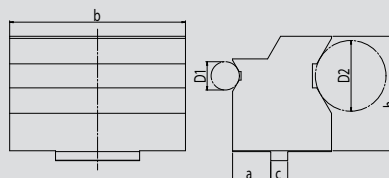
## ALLMATIC GRIPP – mechanical / CENTRO Gripp version (accessories)

### Prismatic jaw, horizontal movable



- Prism angle 120° - shaft height 53 mm on both sides
- Hardened and ground
- Jaws open far enough to allow the workpiece to be removed from above – even at maximum diameter
- Ideally suited for machining keyways on stepped shafts, for example, using two vices side-by-side

Order no. movable: 6921534001031



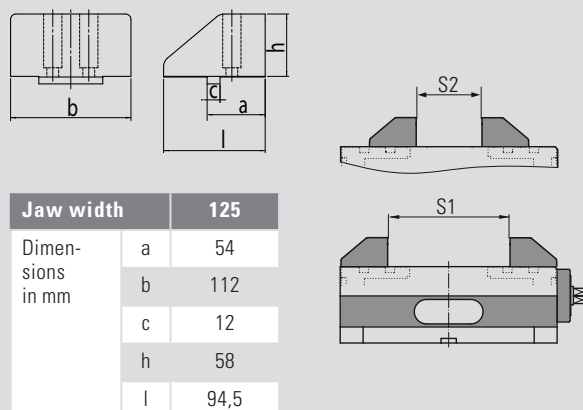
Jaw width	125	
Dimensions in mm	a	27
	b	124,4
	c	12
	h	81
	D1	ø 17 - 42
	D2	ø 38 - 104

### Soft jaw movable



- Material: GGG40
- For production of special jaws by the customer
- Chamfer provides very good accessibility to the workpiece

Order no. movable: 6921534087031



Jaw width	125	
Dimensions in mm	a	54
	b	112
	c	12
	h	58
	l	94,5

Clamping range S1	0 - 58
Clamping range S2	40 - 126



## ALLMATIC GRIPP – mechanical / CENTRO Gripp version (accessories)

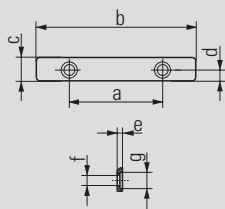
### Spring leaves (pair)



Order no. 6921884103031

- Hardened spring leaves
- Spring leaves (spare) for the pull-down jaws (see page 140 below)

### Parallels (pair)



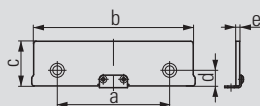
Order no. 6921475013031

Jaw width		90
Dimensions in mm	a	52
	b	89
	c	13
	d	6
	e	3
	f	Ø 6
	g	Ø 9

- Suitable only for the universal pull-down jaws
- For parallel raising of workpieces
- Hardened, ground and polished parallels

- Bolt-on parallels
- For the high side of the jaws

### Click parallels (pair)



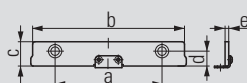
Order no. 6921175029042

Jaw width		90
Dimensions in mm	a	48
	b	90
	c	29
	d	8.75
	e	3

- For parallel raising of workpieces
- Hardened, ground and polished parallels

- Parallels with Click system
- For the high side of the jaws

### Click parallels (pair)



Order no. 6921175016042

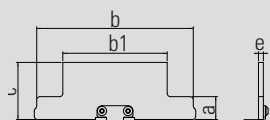
Jaw width		90
Dimensions in mm	a	48
	b	90
	c	16
	d	8.75
	e	3

- For parallel raising of workpieces
- Hardened, ground and polished parallels

- Parallels with Click system
- For the high side of the jaws

## ALLMATIC GRIPP – mechanical / CENTRO Gripp version (accessories)

### Click parallels (pair)



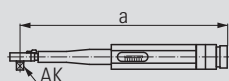
- For parallel raising of workpieces
- Hardened, ground and polished parallels

Order no. 6921535035042

Jaw width	90	
Dimensions in mm	a	14
	b	96
	b1	64
	c	35
	e	3

- Parallels with Click system
- For the high side of jaw

### Torque wrench

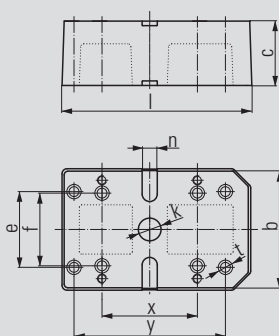


Order no. 0651114113153

Dimensions in mm	a	410
	AK (Drive square)	1/2"

- Can be preset to 20 – 120 Nm
- Only for use on the CENTRO Gripp high-pressure gripper spindle
- Use a smaller torque wrench for more precise presetting of the spindle power

### Console



Order no. 6921885009042

Jaw width	125	
Dimensions in mm	b	154
	c	85
	e	100
	f	96
	l	250
	n	20 H7
	k	∅ 30 H7
	t	13
	x	125,5
	y	200

- Material: GG30
- For raising the CENTRO Gripp 125
- Improved access for five-sided machining
- The mounting hole pattern of CENTRO Gripp and console is offset slightly in order to enable mounting in tables with parallel T-slots as well as in tables with cross slots.

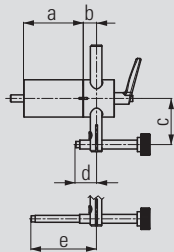
Scope of supply:

- Console incl. fixing bolt
- 2 socket screw wrenches
- 4 bolts

## ALLMATIC GRIPP – mechanical / CENTRO Gripp version (accessories)

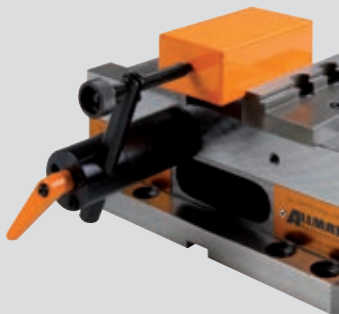
### Workpiece stop

Order no. 6921285650144



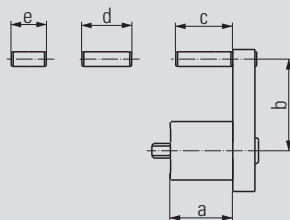
Dimensions in mm	a	67
	b	15
	c	33 – 92
	d	12 – 63.5
	e	53.5 – 113.5

- Can be mounted on either side of the vice at the designated positions
- M8 fastening thread
- Position of the third workpiece axis can be preset and clamped
- Workpiece stop can be swivelled away once the workpiece has been clamped
- This allows the stop side of the workpiece to be machined as well.  
(Repeating accuracy:  $\pm 0.01$ )



### Workpiece stop

Order no. 6921685670042



Dimensions in mm	a	34
	b	27 – 59
	c	31
	d	27
	e	19

- Can be mounted on either side of the vice in the designated positions
- M8 fastening thread
- Can be pre-mounted with various fixed dimensions
- Position of the third workpiece axis can be preset



## ALLMATIC GRIPP – mechanical / CENTRO Gripp version (accessories)

### Aligning and fixing set

Order no. – see table



T-slot/ Thread	Order No.
12/M10	6921285600031
14/M12	6921285601031
16/M14	6921285602031
18/M16	6921285603031
20/M16	6921285606031
22/M16	6921285607031

- For alignment (positioning) and for mounting the vice on the pallet and the machine table
- Size according to T-slot or thread in the machine table