

# ALLMATIC NC – MECHANICAL TC VERSION, TYPE 90

## Scope of application:

- Horizontal and vertical installation – suitable for both vertical and horizontal CNC-controlled milling machines
- Lateral installation is also possible

## Product features:

- Extreme accuracy for your machining
- The TC vice is ground and polished on all sides
- Clamping force can be preset in 11 increments – fine gradations for delicate workpieces. At most, one revolution is required to reach the max. clamping force
- Preselectable and reproducible clamping forces enable the workpiece position to be repeated within a tolerance of less than 0.01 mm



End surface with fitting holes for vertical installation

Hardened, ground and polished guideway

Robust base made of GGG 60

Clamping force presetting


M8 thread for workpiece stop

Mounting holes for lateral installation on the machine table

Precision aligning slots (longitudinal/transverse) in the bottom surface for optimal alignment on the machine table

Outlet for coolant and chips

Connecting thread for angular drive

 Optional: mounting holes in the bottom surface for zero-point clamping systems are possible

**Order no. jaw width 90: 6921678000055**

## Scope of supply:

- 1 high-pressure vice with step jaws
- 1 hand crank
- 4 side clamps
- 1 socket screw wrench



Vice in lateral clamping position

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

# ALLMATIC NC – MECHANICAL TC VERSION, TYPE 125

## Scope of application:

- Horizontal and vertical installation – suitable for both vertical and horizontal CNC-controlled milling machines
- Lateral installation is also possible

## Product features:

- Extreme accuracy for your machining
- The TC vice is ground and polished on all sides
- Clamping force can be preset in 4 increments. At most, 2 revolutions are required to reach the max. clamping force
- Preselectable and reproducible clamping forces enable the workpiece position to be repeated within a tolerance of less than 0.01 mm



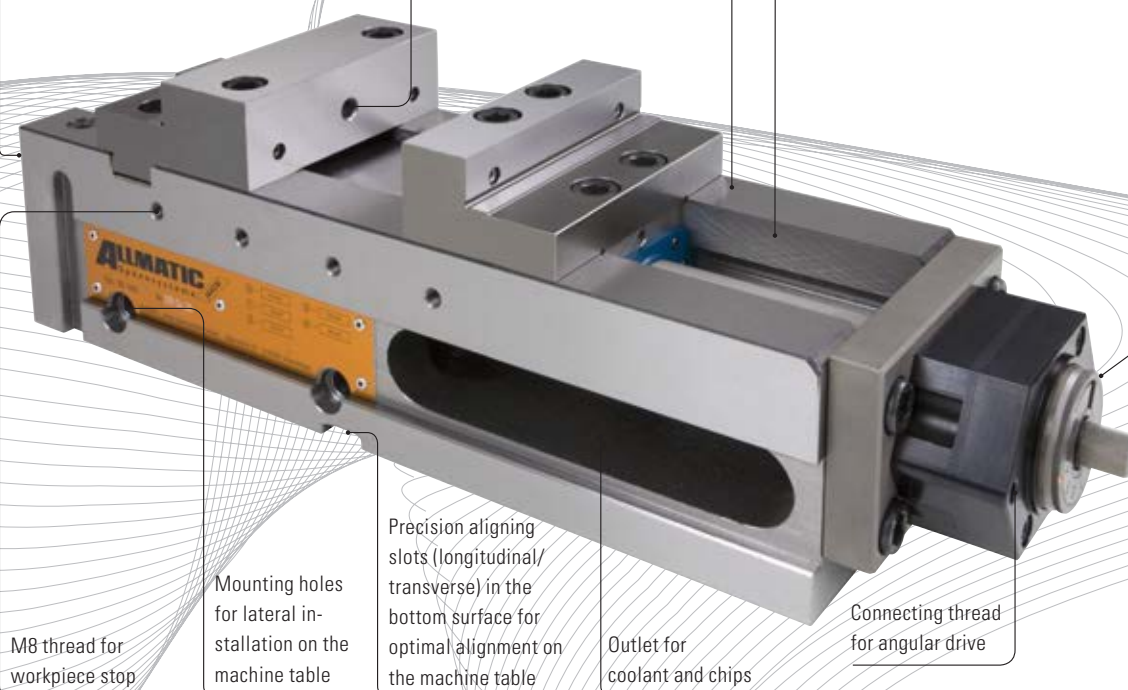
End surface with fitting holes for vertical installation and connecting thread for extension

M10 thread for mounting HD jaws

Hardened, ground and polished guideway

Robust base made of GGG 60

Clamping force presetting




M8 thread for workpiece stop

Mounting holes for lateral installation on the machine table

Precision aligning slots (longitudinal/transverse) in the bottom surface for optimal alignment on the machine table

Outlet for coolant and chips

Connecting thread for angular drive

 Optional: mounting holes in the bottom surface for zero-point clamping systems are possible

**Order no. jaw width 125: 6921688000055**

## Scope of supply:

- 1 high-pressure vice with step jaws
- 1 hand crank
- 4 side clamps
- 2 socket screw wrenches



Vice in lateral clamping position

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

# ALLMATIC NC – MECHANICAL TC VERSION, TYPE 160

## Scope of application:

- Horizontal and vertical installation – suitable for both vertical and horizontal CNC-controlled milling machines
- Lateral installation is also possible

## Product features:

- The TC vice is ground and polished on all sides
- Extreme accuracy for your machining
- Clamping force can be preset in 4 increments  
At most, 2 revolutions are required to reach the max. clamping force
- Preselectable and reproducible clamping forces enable the workpiece position to be repeated within a tolerance of less than 0.01 mm



End surface with fitting holes for vertical installation and connecting thread for extension

M10 thread for mounting HD jaws

Hardened, ground and polished guideway

Robust base made of GGG 60


Clamping force presetting

M8 thread for workpiece stop

Precision aligning slots (longitudinal/transverse) in the bottom surface for optimal alignment on the machine table

Outlet for coolant and chips

Connecting thread for angular drive

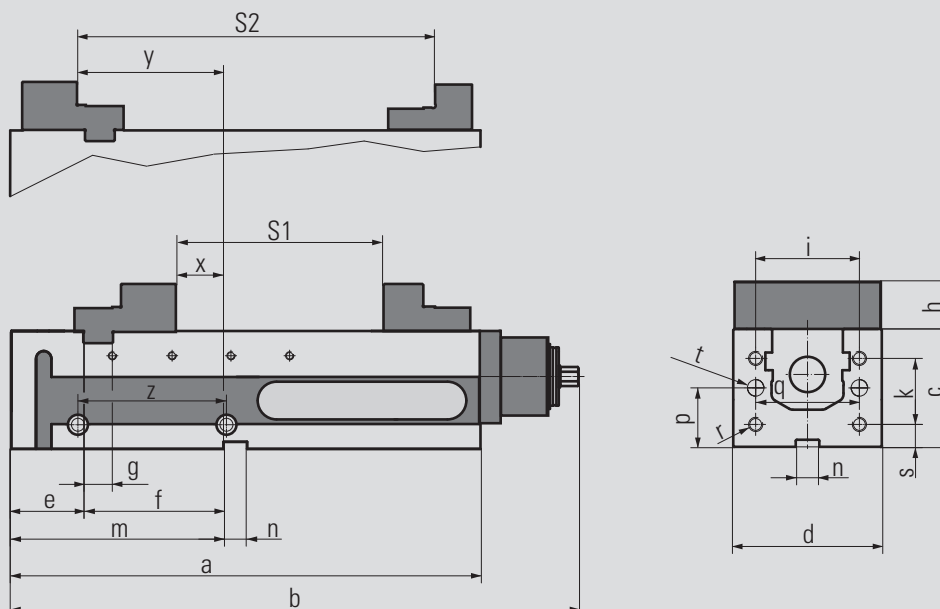
 Optional: mounting holes in the bottom surface for zero-point clamping systems are possible

**Order no. jaw width 160: 6921708000055**

## Scope of supply:

- 1 high-pressure vice with step jaws
- 1 hand crank
- 4 side clamps
- 3 socket screw wrenches
- 1 compensation jaw for clamping range from 0 mm

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



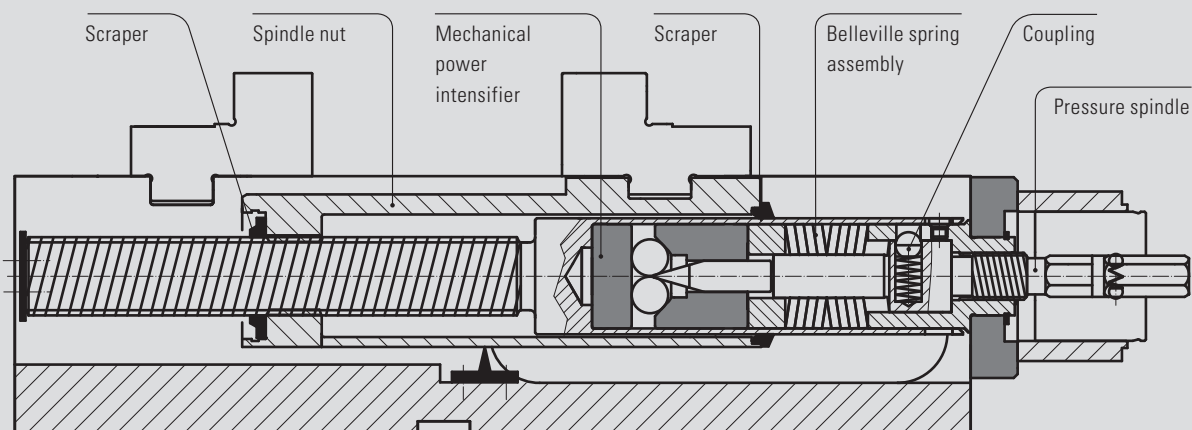
## Technical Data

Jaw width		90	125	160
Dimensions / tolerances in mm	a	283	398	530
	b	339	483	616
	c	80	100	115
	d	90	126	164
	e	39	62	70
	f	73	118	164
	g	20	24	30
	h	34	39.5	49.8
	i	65	88	128
	k	–	56	67
	m	112	180	234
	n	20	20	20
	p	12	50	55
	q	63	88	128
	r	M12	M12	M16
	s	40	19	17
t	dia. 14	dia. 14	dia. 14	
x	15	36	70	
y	75	127	178	
z	63	126	–	

Jaw width	90	125	160
Clamping width S1 in mm	0–126	0–182	(0)17–263
Clamping width S2 in mm	93–217	131–313	189–435
Clamping force increments	11	4	4
Max. clamping force in kN	28	40	60
Weight in kg	16	36	67,2

• Clamping width 0 can be reached using the compensation jaw

## Spindle cross-section





# ALLMATIC NC – MECHANICAL TC VERSION, TYPE 200

## Scope of application:

- Horizontal and vertical installation – suitable for both vertical and horizontal CNC-controlled milling machines
- Lateral installation is also possible

## Product features:

- Extreme accuracy for your machining
- The TC vice is ground and polished on all sides
- Clamping force can be preset in 4 increments. At most, 2 revolutions are required to reach the max. clamping force
- Preselectable and reproducible clamping forces enable the workpiece position to be repeated within a tolerance of less than 0.01 mm



End surface with fitting holes for vertical installation

M14 thread for mounting false jaws

Hardened, ground and polished guideway

Robust base made of GGG 60

Clamping force presetting

M8 thread for workpiece stop

### Important:

Information on compatibility with earlier series of NC 200 (prior to 1998) is available online at [www.allmatic.de](http://www.allmatic.de)

Precision aligning slots (longitudinal/transverse) in the bottom surface for optimal alignment on the machine table

Outlet for coolant and chips

Connecting thread for angular drive



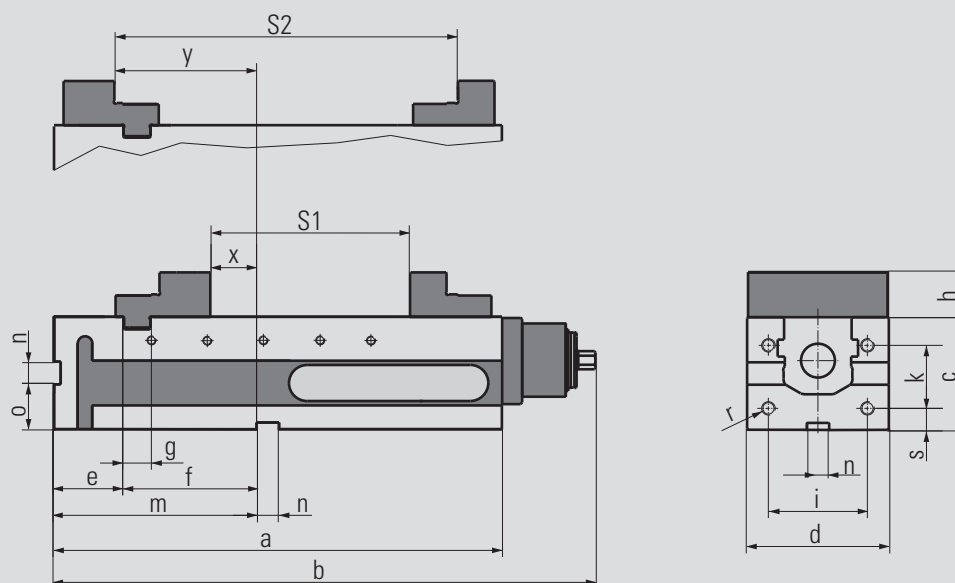
Optional: mounting holes in the bottom surface for zero-point clamping systems are possible

**Order no. jaw width 200: 6921698000155**

## Scope of supply:

- 1 high-pressure vice with step jaws
- 1 hand crank
- 4 side clamps
- 3 socket screw wrenches
- 1 compensation jaw for clamping range from 0 mm

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



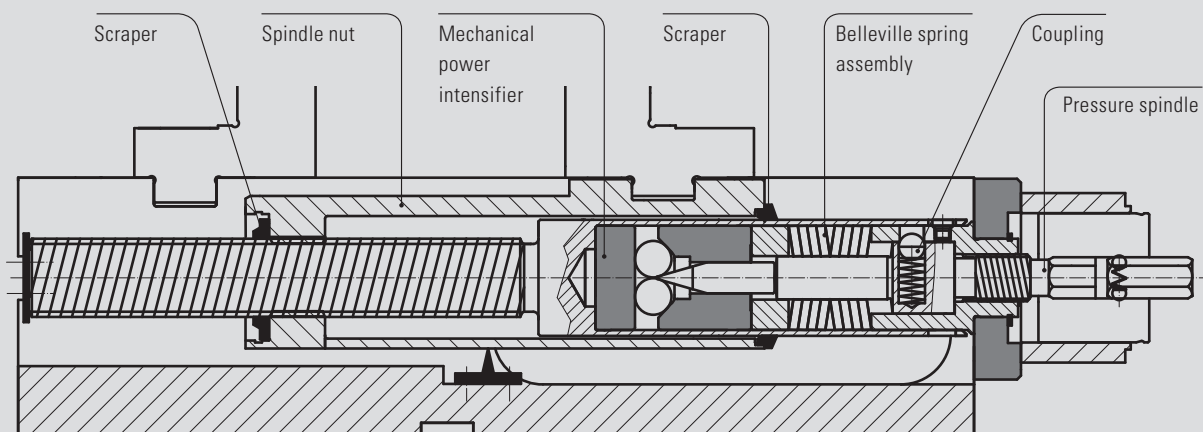
## Technical data

Jaw width		200
Dimensions / tolerances in mm	a	530
	b	620
	c	140
	d	202
	e	70
	f	164
	g	30
	h	60
	i	140
	k	85
	m	234
	n	20
	o	60
	r	M16
s	22	
x	70	
y	178	

Jaw width		200
Clamping range S1 in mm	(0) 15 - 261	
Clamping range S2 in mm	188 - 434	
Clamping force increments	4	
Max. clamping force in kN	80	
Weight in kg	87,4	

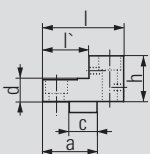
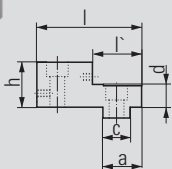
• Clamping width 0 can be reached using the compensation jaw

## Spindle cross-section

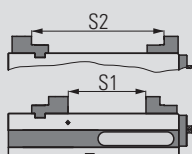


## ALLMATIC NC –mechanical/TC version (accessories)

### Step jaws



- Material: hardened steel
- High and step sides with thread for parallels
- Ground and polished clamping surfaces
- Additional thread on the high side for mounting HD jaws (Types 125 – 200)
- Click system on the high side

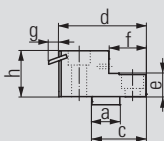
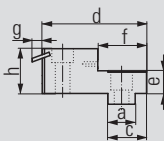


Jaw width	90	125	160	200
Clamping range S1	0 – 126	0 – 182	17 – 263	15 – 261
Clamping range S2	93 – 217	131 – 313	189 – 435	188 – 434

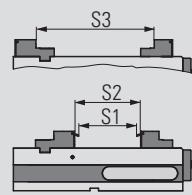
		Jaw width			
fixed		90	125	160	200
Ord. no.:		6921674006731	6921684006731	6921704006731	6921694006031
In mm	a	30	34	40	40
	b	89,5	124,4	160,4	200,4
	c	20	24	30	30
	d	16	20	25	25
	h	34	39,5	49,8	60
	l	68	92	104	104
	l'	32	43	54	54

		Jaw width			
movable		90	125	160	200
Ord. no.:		6921474002731	6921484002731	6921304002731	6921294002231
In mm	a	38	47	63	65
	b	89,5	124,4	160,4	200,4
	c	20	24	30	30
	d	16	20	25	25
	h	34	39,5	49,8	60
	l	56	70	96	100
	l'	31	40	64	65

### Pull-down jaws



- Material: hardened steel
- Pull-down with ground and polished spring leaves for machined and unmachined clamping surfaces
- Ground and polished clamping surfaces
- High clamping accuracy for parallel and accurate angle machining
- Click system on the high side



Jaw width	125
Clamping range S1	0 – 159
Clamping range S2	0 – 176
Clamping range S3	124 – 305

		Jaw width	
fixed		125	
Ord. no.:		6921684106031	
In mm	a	24	
	b	124,4	
	c	34	
	d	92	
	e	20	
	f	43	
	g	8,8	
	h	39,5	

		Jaw width	
movable		125	
Ord. no.:		6921684102031	
In mm	a	24	
	b	124,4	
	c	46,5	
	d	75	
	e	20	
	f	32	
	g	8,8	
	h	39,5	

## ALLMATIC NC – mechanical / TC version (accessories)

### Spring leaves (pair)



Order no. jaw width 90: 6921884103031

- Hardened spring leaves
- Spring leaves (spare) for pull-down jaws Type 90 (see left)

### Spring leaves (pair)



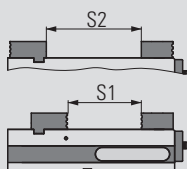
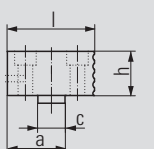
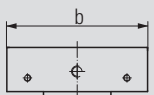
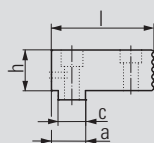
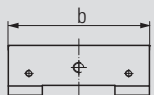
Order no. jaw width 125: 6921684103031  
160: 6921704103031

- Hardened spring leaves
- Spring leaves (spare) for pull-down jaws Type 125 and 160 (see left)

### Hard basic jaws



- Material: hardened steel
- One side smooth, ground and polished; one side serrated
- Additional thread for parallels and for mounting HD jaws on the smooth side
- Mounts for Click system on both sides of the jaw



		Jaw width		
fixed		90	125	160
Ord. no.:		6921674005731	6921684005731	6921704005731
In mm	a	26	30	40
	b	89,5	124,4	160,4
	c	20	24	30
	h	34	39,5	49,8
	l	63	88	104

		Jaw width		
movable		90	125	160
Ord. no.:		6921674004731	6921684004731	6921704004731
In mm	a	40	50	65
	b	89,5	124,4	160,4
	c	20	24	30
	h	34	39,5	49,8
	l	60	76	100

Clamping range S1	0 – 125	0 – 179	15 - 261
Clamping range S2	30 – 156	49 – 231	69 - 315

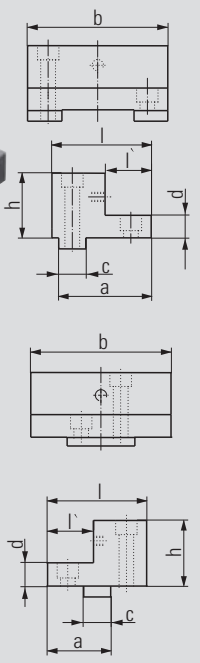
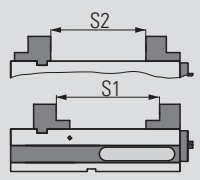


**ALLMATIC NC – mechanical /TC version (accessories)**

**Master jaw adapters**



- Material: hardened steel
- High side of jaw hardened
- Ground clamping surfaces
- Additional thread on the step side for mounting HD jaws
- Click system on the high side



Jaw width	90	125	160	200
Clamping range S1	62 – 186	64 – 246	88 - 334	92 - 338
Clamping range S2	26 – 152	45 – 227	68 - 314	68 - 314

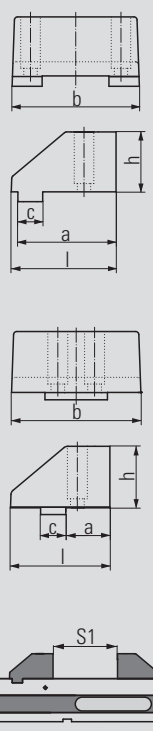
		Jaw width			
fixed		90	125	160	200
Ord. no.:		6921674012231	6921684012231	6921704012231	6921694012231
In mm	a	56	77	89	89
	b	90	126	164	202
	c	20	24	30	30
	d	16	20	24	24
	h	46	58	73	85
	l	66	85	100	100
	l'	30	32	34	34

		Jaw width			
movable		90	125	160	200
Ord. no.:		6921274011231	6921284011231	6921304011231	6921294011231
In mm	a	40	52	65	45
	b	90	126	164	202
	c	20	24	30	30
	d	16	20	24	24
	h	46	58	73	85
	l	60	80	100	100
	l'	30	32	34	38

**Soft jaws**



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



Order no. fixed: 6921684088031

Jaw width	125	
Dimensions in mm	a	95
	b	124
	c	24
	h	58
	l	101.5

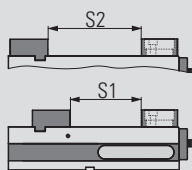
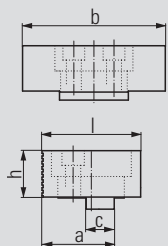
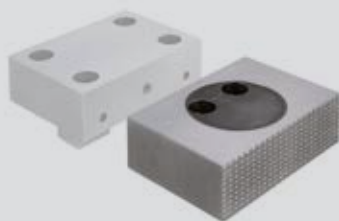
Order no. movable: 6921484087031

Jaw width	125	
Dimensions in mm	a	42
	b	124
	c	24
	h	58
	l	94.5

Clamping range S1	0 – 150
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## ALLMATIC NC – mechanical / TC version (accessories)

### Pivot jaw, movable



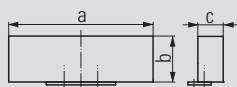
- Material: hardened steel
- With Click-System on both sides
- One side smooth, ground and polished; one side serrated
- Rotatable through 360°
- Picture with hard basic jaw (see page 89)

Order no. jaw width 90: 6921674020142  
 125: 6921684020042  
 160: 6921704020042

Jaw width		90	125	160
Dimensions in mm	a	49.5	62	86
	b	90	124.4	160.4
	c	20	24	30
	h	34	39.5	49.8
	l	68	84	118

Clamping range S1	0 – 115	0 – 167	0 – 240
Clamping range S2	21 – 146	37 – 219	48 – 294

### Soft jaw



Order no. 6921684023042

Jaw width		125
Dimensions in mm	a	125
	b	39.8
	c	22

- Material: case-hardened steel 21MnCr5G, mat. no.: 1.2162
- Jaws can be case-hardened
- For production of special jaws by the customer
- Only for use with jaws with Click system

### Jaw with cross grooving



Order no. 6921684032040

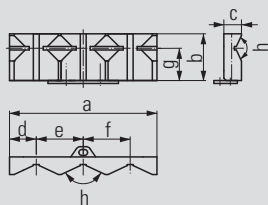
Jaw width		125
Dimensions in mm	a	125.6
	b	40.1
	c	12

- Material: hardened steel
- Jaws with sharp serrations to increase the specific contact pressure per unit area
- Visible impressions on workpiece
- Only suitable for soft materials
- Only for use with jaws with Click system

**ALLMATIC NC – mechanical /TC version (accessories)**

**Prismatic jaws (pair)**

**Order no. 6921684024042**

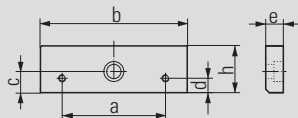


- Material: hardened steel
- Jaws for clamping round parts, vertical dia. 16-74 mm, horizontal dia. 12-40 mm
- Only for use with jaws with Click system

c		125
Dimensions in mm	a	125.6
	b	39.8
	c	15
	d	22.8
	e	40
	f	40
	g	27.5
	h	130°

**Compensation jaw**

**Order no. jaw width 160: 6921704022031**  
**200: 6921694022031**

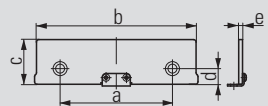


- Material: hardened steel
- Ground and polished clamping surfaces
- For clamping range from 0 mm
- With the LC 160 and 200 vices, this jaw is included

Jaw width	160	200
Dimensions in mm	a	110
	b	200.4
	c	25
	d	18
	e	18
	h	60

**Click parallels (pair)**

**Order no. jaw width 90: 6921175029042**  
**125: 6921185035042**  
**160: 6921205044042**

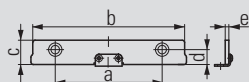


- For parallel raising of workpieces
- Hardened, ground and polished parallels
- Bolt-on parallels with Click system
- For the high side of the jaws

Jaw width	90	125	160
Dimensions in mm	a	88	88
	b	125	160
	c -0.01	35	44
	d	12.25	12.25
	e	3	3

## ALLMATIC NC – mechanical / TC version (accessories)

### Click parallels (pair)

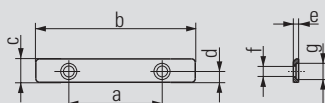


Order no. jaw width 90: 6921175016042  
 125: 6921185020042  
 160: 6921205025042

Jaw width	90	125	160
Dimensions in mm			
a	48	88	88
b	90	125	160
c-0.01	16	20	25
d	8.75	12.25	12.25
e	3	3	3

- For parallel raising of workpieces
- Hardened, ground and polished parallels
- Bolt-on parallels with Click system
- For the high side of the jaws

### Parallels (pair)



Order no. jaw width 90: 6921475013031  
 125: 6921485015031  
 160: 6921305019031

Jaw width	90	125	160
Dimensions in mm			
a	52	88	88
b	89	124	160
c	13	15	19
d	6	6	6
e	3	3	3
f	Ø 6	Ø 6	Ø 6
g	Ø 9	Ø 9	Ø 9

- For parallel raising of workpieces
- Hardened, ground and polished parallels
- Bolt-on parallels
- For the step side of the jaws

### Smooth jaws (pair)



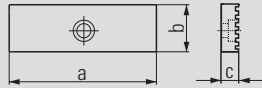
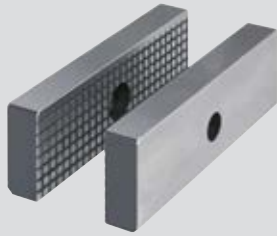
Order no. jaw width 125: 6921024022031  
 160: 6921034022031

Jaw width	125	160
Dimensions in mm		
a	125	160
b	40	50
c	15	20

- Material: hardened steel
- For parts with delicate clamping surfaces
- Please order fastening bolts separately (order no. 6921011023000)

## ALLMATIC NC – mechanical / TC version (accessories)

### Serrated jaws (pair)

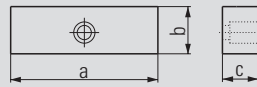


Order no. jaw width 125: 6921021005031  
160: 6921031005031

Jaw width		125	160
Dimensions in mm	a	125	160
	b	40	50
	c	15	20

- Material: hardened steel
- Standard jaws with serration
- To increase the specific contact pressure per unit area
- Please order fastening bolts separately (order no. 6921011023000)

### Soft jaws (pair)

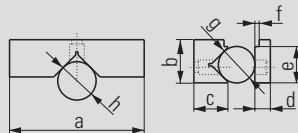


Order no. jaw width 125: 6921024023031  
160: 6921034023031

Jaw width		125	160
Dimensions in mm	a	125	160
	b	40	50
	c	25	30

- Material: 21MnCr5G, mat. no.: 1.2162
- Jaws can be case-hardened
- For production of special jaws by the customer
- Please order fastening bolts separately (order no. 6921011023000)

### Prismatic jaws (set)



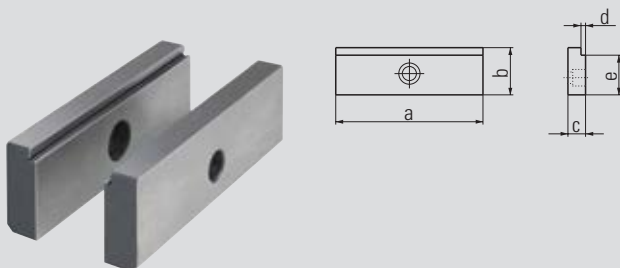
Order no. jaw width 125: 6921024024031  
160: 6921034024031

Jaw width		125	160
Dimensions in mm	a	125	160
	b	40	50
	c	35	45
	d	15	20
	e	35	45
	f	3	3
	g	∅ 12 – 28	∅ 15 – 40
	h	∅ 18 – 55	∅ 22 – 65

- Material: hardened steel
- For horizontal and vertical clamping of round and flat workpieces
- Please order fastening bolts separately (order no. 6921011023000)

## ALLMATIC NC – mechanical / TC version (accessories)

### Step jaws (pair)

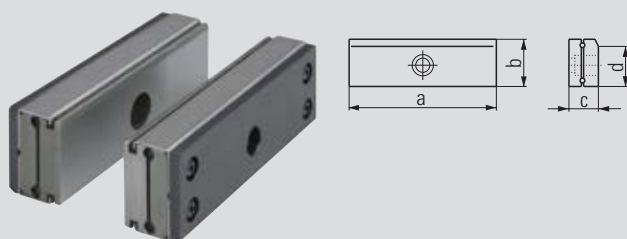


Order no. jaw width 125: 6921024025031  
160: 6921034025031

Jaw width		125	160
Dimensions in mm	a	125	160
	b	40	50
	c	15	20
	d	3	3
	e	35	45

- Material: hardened steel
- For horizontal clamping of flat workpieces
- Please order fastening bolts separately (order no. 6921011023000)

### Roller pull-down jaws (pair)

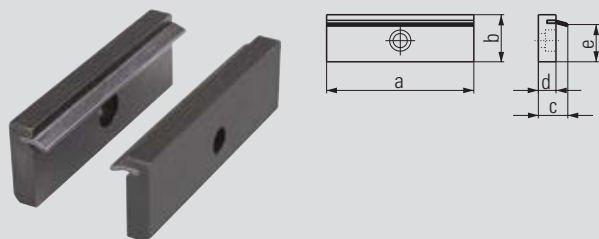


Order no. jaw width 125: 6921024005131  
160: 6921034005131

Jaw width		125	160
Dimensions in mm	a	125	160
	b	40	50
	c	26	35.5
	d	35	45

- Material: hardened steel
- For parts with delicate clamping surfaces
- Jaw parts in contact with the workpiece press the workpiece onto the support surface
- Please order fastening bolts separately (order no. 6921011023000)

### Spring leaf pull-down jaws (pair)



Order no. jaw width 125: 6921024001042  
160: 6921034001042


Jaw width		125	160
Dimensions in mm	a	125	160
	b	40	50
	c	20	23
	d	12	15
	e	33	43

- Material: hardened steel
- For parts with unmachined clamping surfaces
- Spring leaves press the workpiece onto the support surface
- Spring leaves are interchangeable, (see the next page)
- Please order fastening bolts separately (order no. 6921011023000)



**ALLMATIC NC – mechanical / TC version (accessories)**

### Spring leaves (pair)



**Order no. jaw width**  
 125: 6921024002131  
 160: 6921034002131

- Spring leaves (spare) for spring leaf pull-down jaws (see previous page)

### Jaw fixing bolt



**Order no. 6921011023000**

Bolt with shoulder – M10 x 23

- Suitable for all jaws, jaw width 090 mm to 160 mm

### Workpiece stop

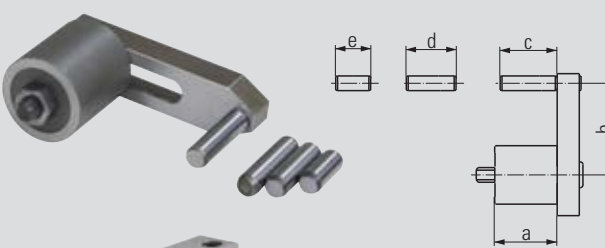




**Order no. 6921285650144**

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 in 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 also be machined (repeating accuracy:  $\pm 0.01$ )

### Workpiece stop

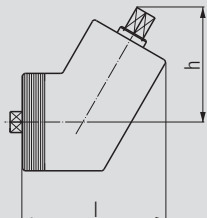
**Order no. 6921685670042**

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 NC – mechanical / TC version (accessories)

### Angular drive

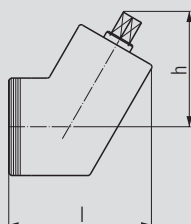


- For jaw width 125 – 200
- Wrench size 14
- Can be bolted to the end of the spindle if access is difficult
- Step-down ratio 2 : 1

Order no. jaw width 125 to 200: 6921285700143

Jaw width		125	160	200
Dimensions in mm	l	97	97	97
	h	75	75	75

### Angular drive

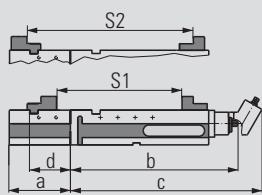


- For type 90
- Wrench size 12
- Can be bolted to the end of the spindle if access is difficult
- Step-down ratio 2 : 1

Order no. 6921675700043

Jaw width		90
Dimensions in mm	l	87
	h	75

### Clamping range enlargement



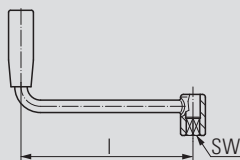
- For increasing the clamping range of the NC vice TC version
- Is attached to the end of the TC vice
- No transmission of clamping forces to the machine table
- Scope of supply: 1 pair side clamps

Order no. jaw width 125: 6921685008055  
160: 6921705008055

Jaw width		125	160
Dimensions in mm	a	176	237
	b	483	620
	c	552	683
	d	117	172

Clamping range S1	179 – 361	259 – 505
Clamping range S2	310 – 492	431 – 677

### Hand crank



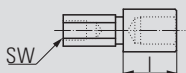
Order no. jaw width 90: 6921675508031  
125 - 200: 6921685508031

Jaw width		90	125
Dimensions in mm	l	150	180
	SW	12	14

- Suitable for jaw width 125 – 200 mm

## ALLMATIC NC – mechanical / TC version (accessories)

### Hexagonal extension



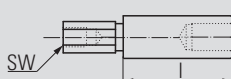
- Improves access for the hand crank
- Is secured to the hand crank with a bolt

Order no. 6921685512040

Jaw width	125	
Dimensions in mm	l	30
	SW	14

- Suitable for jaw width 125 – 200 mm

### Hexagonal extension



- Improves access for the hand crank
- Is secured to the hand crank with a bolt

Order no. 6921685512140

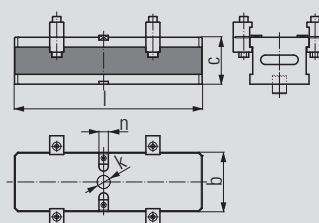
Jaw width	125	
Dimensions in mm	l	60
	SW	14

- Suitable for jaw width 125 – 200 mm

### XL console



Order no. 6921885010042



- Material: GG30
- For raising the vice
- Improvement of access for 5-sided machining
- Optional preparation for zero-point clamping systems
- Scope of supply: console incl. fixing bolt for positioning the vice, 4 pairs of Duo side clamps, 2 socket screw wrenches

Jaw width	125	
Dimensions in mm	b	126
	c	100
	k	Ø 30
	l	400
	n	20

### Side clamps (pair)



Order no. jaw width 90: 6921015000231  
125 - 200: 6921025000031

- For securing the vice on the machine table
- Supplied as a set of 2

## ALLMATIC NC – mechanical / TC version (accessories)

### DUO side clamps



**Order no. jaw width 90:** 6921675000031  
**125 - 200:** 6921285000031

- For securing the vice on a console or machine table
- 1 set consists of 2 pairs of side clamps incl. screw connections

### Aligning and fixing set



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

**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