

ALLMATIC NC – MECHANICAL DUO 90 VERSION

Scope of application:

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



Product features:

- Extreme accuracy for your machining
- Clamping force can be preset in four to six increments. At most, one revolutions are required to reach the max. clamping force
- For clamping two identical parts (dimensional differences of up to ± 3 mm are compensated for)
- Preselectable and reproducible clamping forces enable the workpiece position to be repeated within a tolerance of less than 0.01 mm

Robust base
made of GGG 60

Hardened, ground and
polished guideway

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 system are
possible

Important:

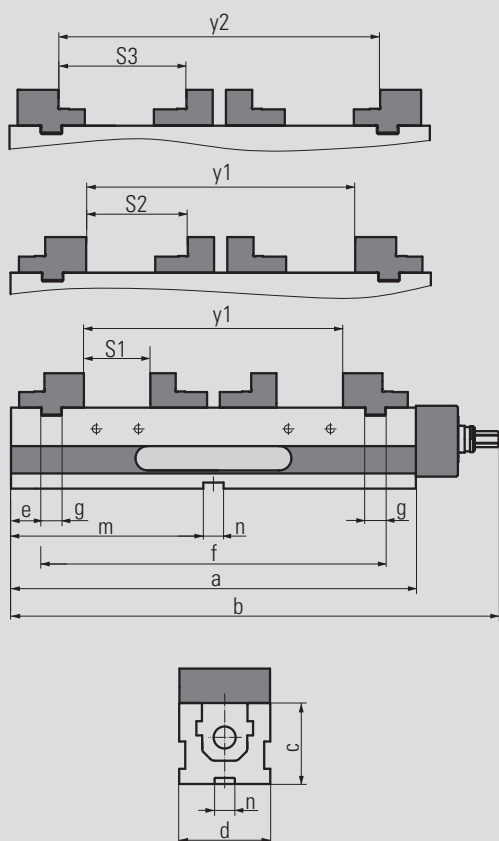
- Workpieces must be placed in both stations before clamping begins.
- Type 90: drive head with finer clamping force presetting for delicate workpieces (6 increments)

Order no. jaw width 90: 6921478000955

Scope of supply:

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

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



Technical data

Jaw width	90	
Dimensions / tolerances in mm	a	400
	b	482
	c	80
	d	90
	e	30
	f	340
	g	20
	m	190
	n	20
	y1	256
y2	306	

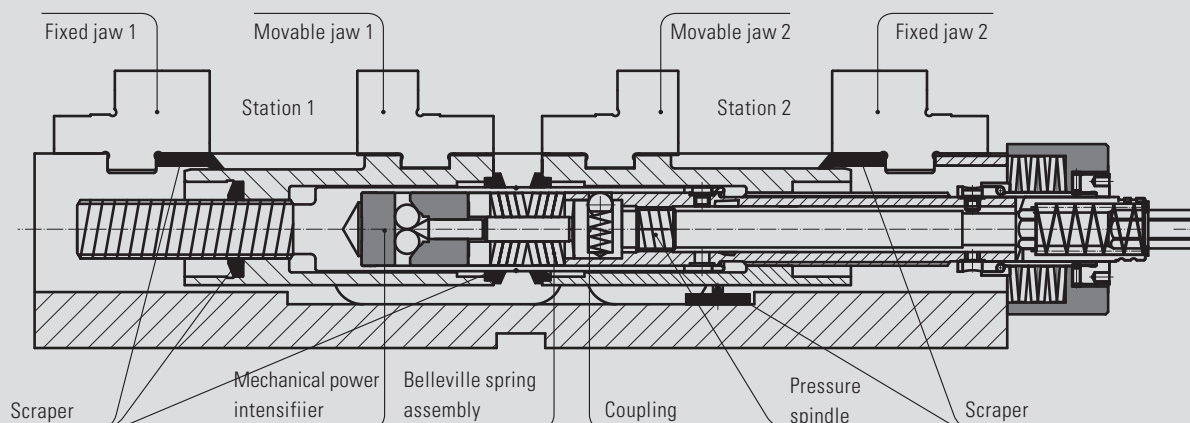
Jaw width	90	
Clamping range S1 in mm	0 – 64	
Clamping range S2 in mm	31 – 95	
Clamping range S3 in mm	56 – 120	
Clamping force increments	6	
Max. clamping force in kN	28	
Weight in kg	24	

Turn the hand crank clockwise to bring movable jaw one up against the workpiece in station one. The workpiece is fixed with a force of approx. 1000 N. Turn the hand crank further to bring movable jaw two up against the workpiece in station two and fix it there. If you continue turning beyond the "locking point", the coupling will disengage. The pressure spindle activates the mechanical power intensifier. Turning as far as the limit stop produces a controlled clamping force build-up.

Workpieces must be placed in both stations before clamping begins. Dimensional differences between workpiece one and workpiece two are compensated for:

NC DUO 90 ± 3 mm

Spindle cross-section



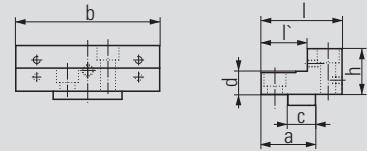
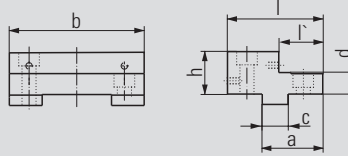
ALLMATIC NC – mechanical / DUO 90 version (accessories)

Step jaws



Order no. fixed:
6921474006731

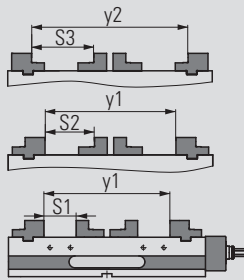
Order no. movable:
6921474002731



- Material: hardened steel
- Ground and polished clamping surfaces
- High and step sides with thread for parallels

Jaw width		90
Dimensions in mm	a	42
	b	89.5
	c	20
	d	16
	h	34
	l	64
	l'	25

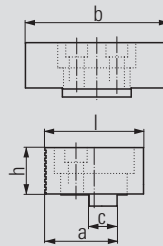
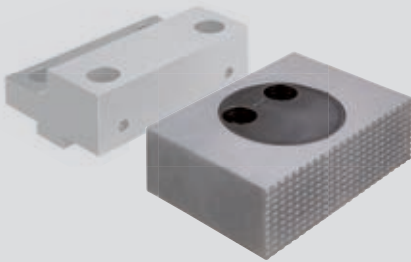
Jaw width		90
Dimensions in mm	a	38
	b	89.5
	c	20
	d	16
	h	34
	l	56
	l'	31



y1	256
y2	306
Clamping range S1	0 – 64
Clamping range S2	31 – 95
Clamping range S3	56 – 120

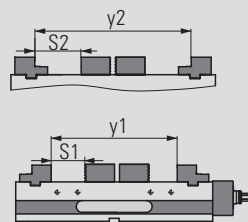
Pivot jaw, movable

Order no. movable: 6921674020142



Jaw width		90
Dimensions in mm	a	49.5
	b	90
	c	20
	h	34
	l	68

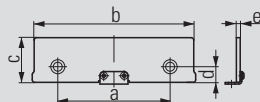
- Material: hardened steel
- With Click-System
- One side smooth, ground and polished; one side serrated
- Rotatable through 360°
- Picture with step jaw (see above)



y1	256
y2	306
Clamping range S1	0 – 52
Clamping range S2	34 – 77

ALLMATIC NC – mechanical / DUO 90 version (accessories)

Click parallels (pair)



Order no. 6921175029042

Jaw width	90	
Dimensions in mm	a	48
	b	90
	c -0.01	29
	d	8.75
	e	3

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

Click parallels (pair)

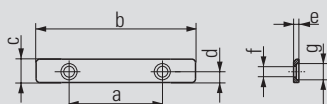


Order no. 6921175016042

Jaw width	90	
Dimensions in mm	a	48
	b	90
	c -0.01	16
	d	8.75
	e	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)



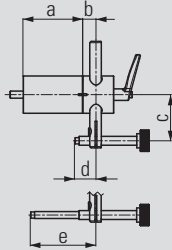
Order no. 6921475013031

Jaw width	90	
Dimensions in mm	a	52
	b	89
	c	13
	d	6
	e	3
	f	Ø6
	g	Ø9

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

ALLMATIC NC – mechanical / DUO 90 version (accessories)

Workpiece stop

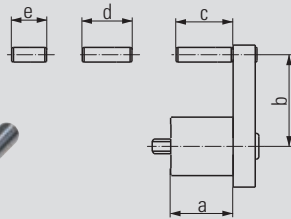
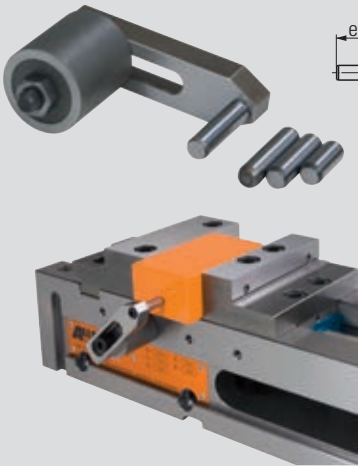


Order no. 6921285650144

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 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: ± 0.01)

Workpiece stop

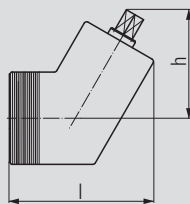
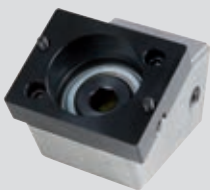


Order no. 6921685670042

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

Angular drive



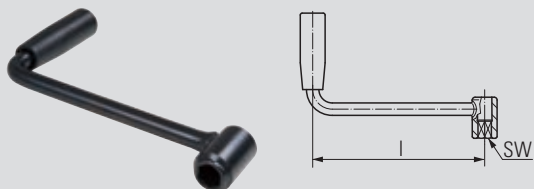
Order no. 6921485700043

Jaw width	90	
Dimensions in mm	h	75
	l	102

- Wrench size 14
- Can be bolted to the end of the spindle if access is difficult
- Step-down ratio 2 : 1

ALLMATIC NC – mechanical / DUO 90 version (accessories)

Hand crank



Order no. 6921685508031

Jaw width	90	
Dimensions in mm	l	180
	SW	14

Hexagonal extension



Order no. 6921685512040

Jaw width	90	
Dimensions in mm	l	30
	SW	14

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

Hexagonal extension



Order no. 6921685512140

Jaw width	90	
Dimensions in mm	l	60
	SW	14

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

Side clamps (pair)



Order no. 6921015000231

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

DUO side clamps



Order no. 6921675000031

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

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