

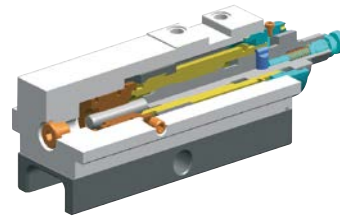


ROEMHELD
HILMA ■ STARK



Workholding Systems

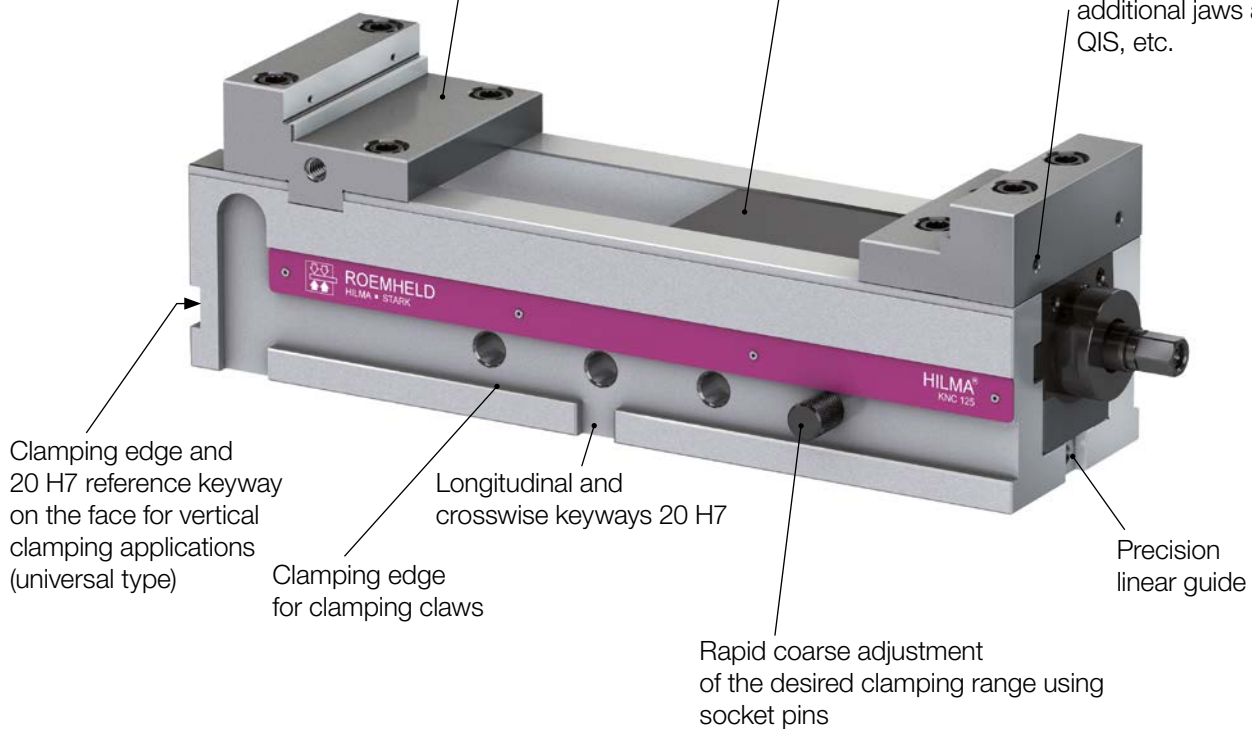
HILMA.KNC



Force transmission and lead screw encapsulated in the slide

Reversible step jaws

Universal use of nearly all new and existing HILMA additional jaws as Standard, QIS, etc.

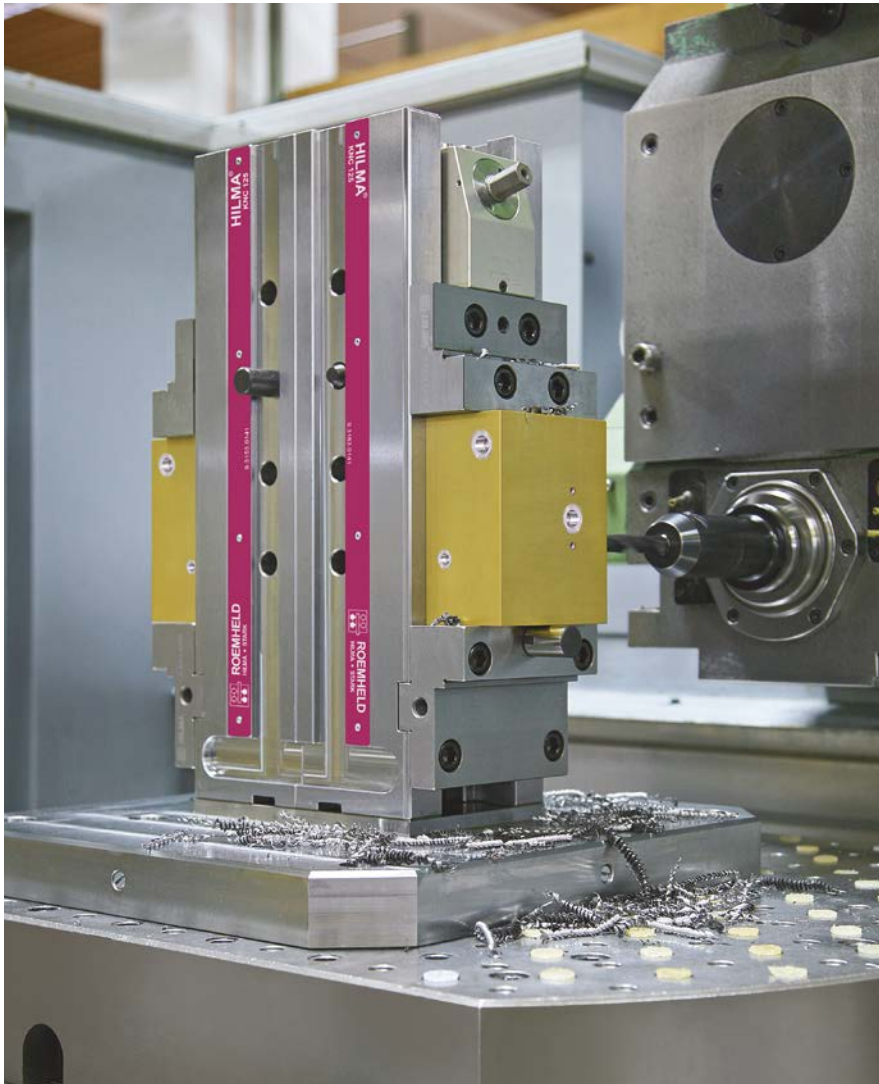


Your benefits at a glance:

- ★ Highest precision
- ★ Universal use
- ★ High process safety
- ★ Simple and quick cleaning
- ★ Quick adjustment of the clamping range by socket pins



For highest demands!



HILMA.KNC Universal
horizontal arrangement with angle drive



HILMA.KNC Universal
vertical arrangement with block jaws



HILMA.KNC Universal
lateral arrangement with reversible
step jaws

Steel base resistant to deformation, an optimum fixation of the fixed jaw and the long inside linear guide ensure maximum precision.

The use of nearly all known and already existing EL/NC clamping jaws as well as of the extensive range of HILMA.KNC clamping jaws enables universal use.

Thanks to the completely encapsulated force transmission and lead screw, maximum process safety is obtained. No disturbing accumulation of swarf.

The removal of the slide facilitates a simple and quick cleaning of the clamping system. Thus cost intensive downtimes will be reduced.

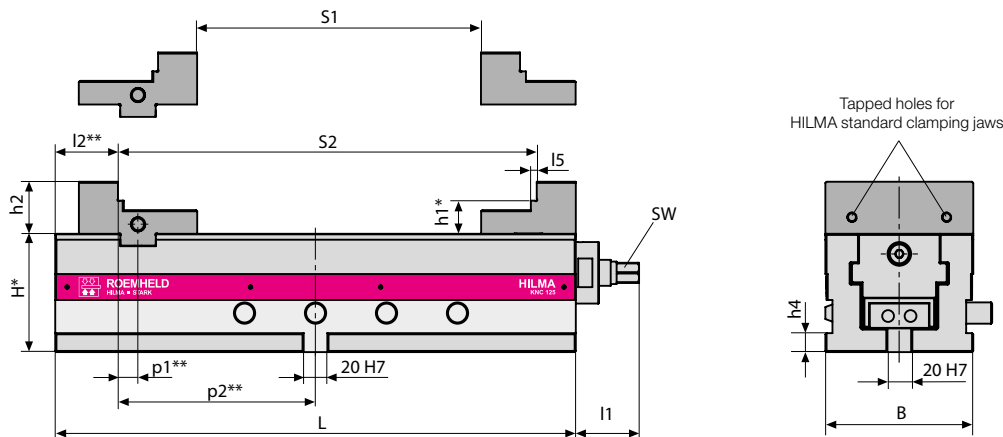
Thanks to the quick adjustment by socket pins proven for decades, a quick adaptation to very different clamping ranges is possible with minimum effort on the crank handle.



HILMA.KNC machine vice mechanical-hydraulic
for tool making, mould making, construction of jigs and fixtures and production

The machine vice for exacting demands on clamping quality. The mechanical-hydraulic force transmission and the lead screw are integrated into the slide body and are fully encapsulated. Easy, user-friendly manual clamping using the crank handle. 6-stage clamping force selection and angle drive are available as optional extras which may be retrofitted. The steel base with minimum deformation equipped with hardened and ground guideways as well as the linear guide with almost no play of the slide guarantee maximum precision.

HILMA.KNC Standard horizontal arrangement – with longitudinal and crosswise keyways 20 H7



*Tolerance ± 0.01 mm

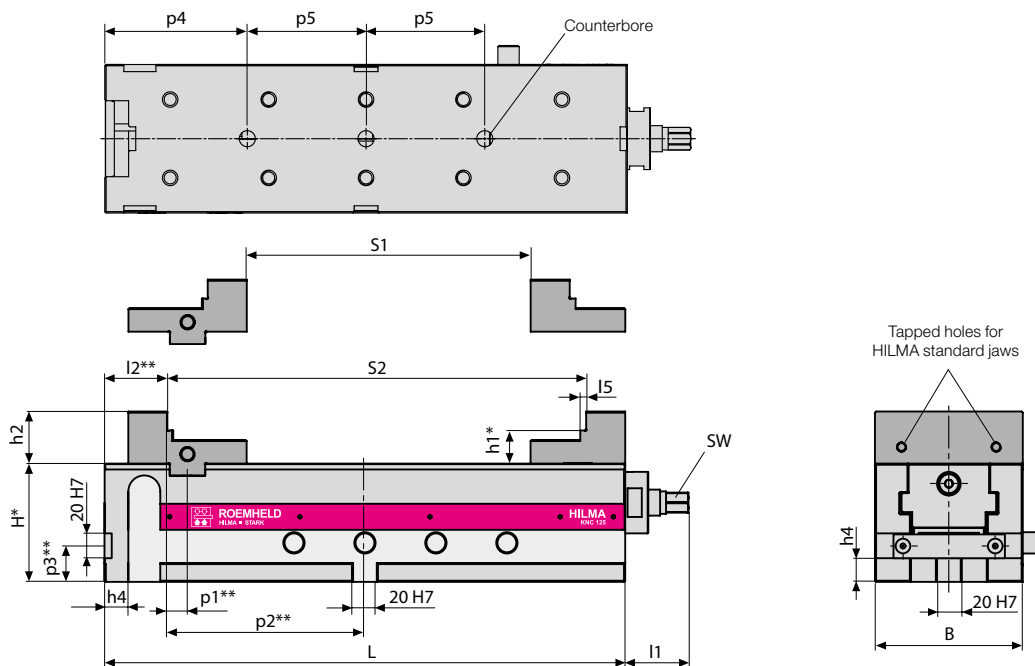
**Tolerance ± 0.02 mm

Scope of supply:
crank handle, reversible step jaws,
operating manual

Dimensions mm

Type	KNC standard Part no.	Clamping force [kN]	Weight [kg]	L	B	H	h1	h2	h4	I1	I2	I5	p1	p2	Jaw opening		
KNC 100	931520131	25	17,0	300	100	90	27	33	16	45,4	46	4	14	104	0 – 139	90 – 229	14
KNC 125	931530131	40	39,5	440	125	100	28	44	16	53,5	53	5	17	167	0 – 239	114 – 353	17
KNC 160	931540131	50	72,0	540	160	115	37	53	20	53,5	64	6	16	206	0 – 297	136 – 433	17

HILMA.KNC Universal for horizontal, vertical and lateral arrangement, with longitudinal and crosswise keyways, 20 H7 reference keyway on the face, threaded mounting holes in the base and gas pressure spring for load relief of the slide in vertical arrangement.



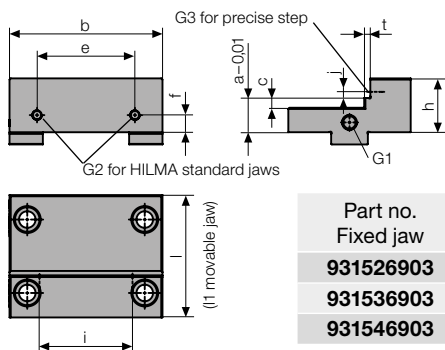
*Tolerance ± 0.01 mm

**Tolerance ± 0.02 mm

Scope of supply:
crank handle, reversible step jaws,
operating manual

Dimensions mm

Type	KNC Universal Part no.	Clamping force [kN]	Weight [kg]	L	B	H	h1	h2	h4	I1	I2	I5	p1	p2	p3	p4	p5	Jaw opening		
KNC 100	931520141	25	17,0	300	100	90	27	33	16	45,4	46	4	14	104	28,5	70	2x 80	0 – 139	90 – 229	14
KNC 125	931530141	40	39,5	440	125	100	28	44	16	53,5	53	5	17	167	30	120	2x 100	0 – 239	114 – 353	17
KNC 160	931540141	50	72,0	540	160	115	37	53	20	53,5	64	6	16	206	36	170	3x 100	0 – 297	136 – 433	17



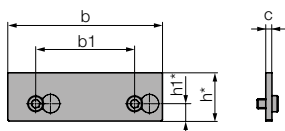
Reversible step jaw (figure shows fixed jaw)

1st side with precise step accommodation, 2nd side with a hole pattern for HILMA QIS jaw system or for fastening quickly interchangeable precise step bars.

Part no. Fixed jaw	Part no. Movable jaw	Dimensions in mm													G1	G2	G3
l	l1	b	h	a	c	e	f	t	i	j							
931526903	931526904	80	60	100	33	27	8	65	11	4	—	—	M12/18	M6/8	—		
931536903	931536904	100	80	125	44	28	8	80	14	5	76	5	M12/18	M8/11	M4/6		
931546903	931546904	120	100	160	53	37	9	100	17	6	76	5	M12/18	M10/12	M4/6		

Precise step bar

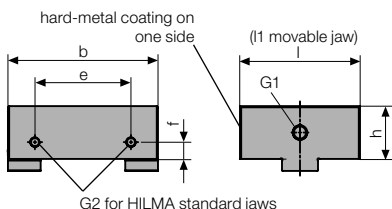
for reversible step jaw and block jaw, hardened



Part no. Precise step h	Part no. Precise step h1	Dimensions in mm					
l	b	h	h1	e	f		
931526915	931526916	5	100	28	23,5	65	11
931536915	931536916	5	125	39	34	80	14
931546915	931546916	5	160	48	43	100	17

Block jaw, hardened (figure shows fixed jaw)

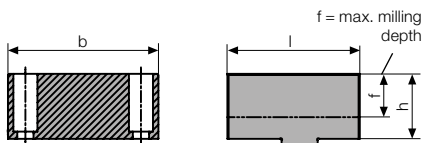
1st side hard-metal coated, 2nd side ground to be smooth, with hole pattern matching the HILMA QIS jaw system and standard jaws



Part no. Fixed jaw	Part no. Movable jaw	Dimensions in mm								G1	G2
l	l1	b	h	e	f						
931526901	931526902	80	60	100	33,5	65	11	M12/18	M 6/8		
931536901	931536902	100	80	125	44	80	14	M12/18	M 8/11		
931546901	931546902	120	100	160	53	100	17	M12/18	M10/12		

Block jaw soft (figure shows fixed jaw)

non-hardened, for milling workpiece contours, steps with stops etc.. Material 42 CrMo 4



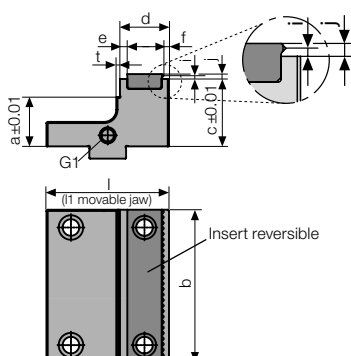
Part no. Fixed jaw	Part no. Movable jaw	Dimensions in mm				
l	l1	b	h	f		
931526905	931526906	90	70	100	44	27
931536905	931536906	110	90	125	54	35
931546905	931546906	130	110	160	63	37

Clamping jaw, extra high with jaw insert grip

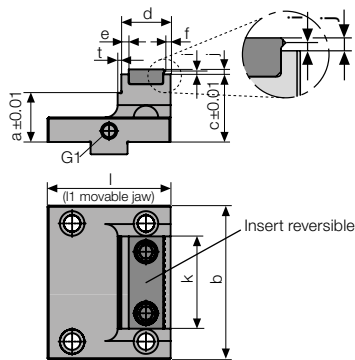
(figure shows fixed jaw) **Use locking device!**

Whether for compensating for non-parallel clamping surfaces, powerful clamping in the case of small clamping edge or for providing different precise step accommodations: just change the bar to create a multitude of different jaw variants.

Jaw insert standard: 1st side grip texture, 2nd side smooth for precise steps. Jaw inserts are easily changed and can be designed, with certain limits, individually.



Part no. Fixed jaw	Part no. Movable jaw	Dimensions in mm											G1
l	l1	b	a	c	e	f	i	j	t				
931526911	931526912	84	63	100	37	52	65	4,5	2,5	4	3	M12/18	
931536911	931536912	100	80	125	40	55	80	4,5	2,5	4	3	M12/18	



Clamping jaw, extra high with jaw insert grip, various widths

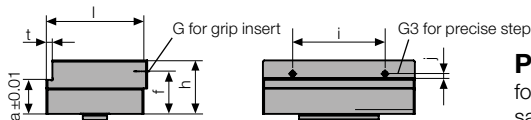
(figure shows fixed jaw) **Use locking device!**

Whether for compensating for non-parallel clamping surfaces, powerful clamping in the case of small clamping edge or for providing different precise step accommodations:

just change the bar to create a multitude of different jaw variants.

Jaw insert standard: 1st side grip texture, 2nd side smooth for precise steps. Interchangeable inserts are easily changed and can be designed, with certain limits, individually.

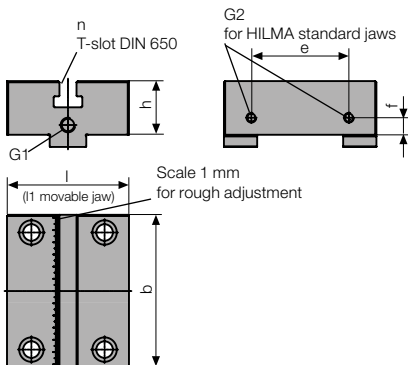
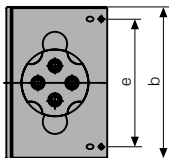
Part no. Fixed jaw	Part no. Movable jaw	Dimensions in mm											
		l	l1	b	a	c	e	f	i	j	k	t	G1
931526913	931526914	84	63	100	37	52	6	4,5	2,5	4	62	3	M12/18
931536913	931536914	100	80	125	40	55	6	4,5	2,5	4	75	3	M12/18



Pendulum jaw

for compensation of non-parallel clamping surfaces, saw cuts or non-parallel surfaces on drawn materials

Part no. Fixed jaw	Dimensions in mm											
	l	b	h	a	e	f	i	j	t	G	G1	
931536908	83	125	44	28	105	35	76	5	5	10	M4/6	
931546908	104	160	53	37	140	44	76	5	6	10	M4/6	



SlimFlex clamping jaw (figure shows fixed jaw)

e.g. for working with clamping base. Gives free room for spindle and tool.

Available with stepped inserts as well as with prismatic and soft inserts!

Part no. Fixed jaw	Part no. Movable jaw	Dimensions in mm									
		l	l1	b	h	e	f	n	G1	G2	
931526909	931526910	80	60	100	33,5	65	11	12	M8/14	M6/8	
931536909	931536910	100	80	125	44	80	14	14	M12/18	M8/11	
931546909	931546910	120	100	160	53	100	17	14	M12/18	M10/12	

SlimFlex insert, soft

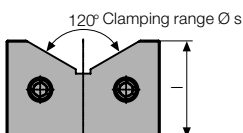
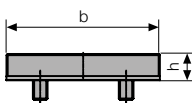
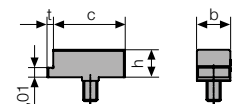
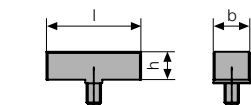
Part no.	Dimensions in mm			
	l	b	h	For jaw width
932858014	60	30	23	100
932858009	78	30	23	125 / 160

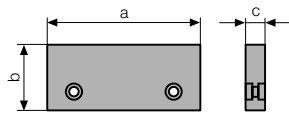
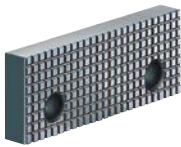
SlimFlex insert, stepped

Part no.	Dimensions in mm				
	a	b	c	h	t
932858013	8	23	50	23	5
932858010	8	28	60	23	5

SlimFlex insert, prismatic

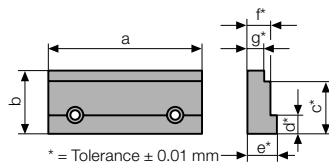
Part no.	Dimensions in mm			
	l	b	h	s
932858012	60	100	18	50-140
932858011	80	125	18	60-150





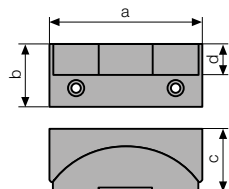
Standard jaw smooth/serrated

Part no.	a	b	c
520581003	100	34	13
520581004	125	45	15
520581005	160	54	18



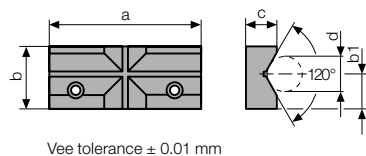
Precision step jaw

Part no.	a	b	c	d	e	f	g
520820001	100	34	29	10	19	15	11
520820002	125	45	39	13	25	20	16
520820003	160	54	45	15	25	20	16



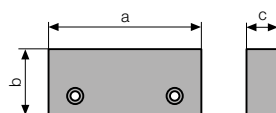
Pendulum jaw

Part no.	a	b	c	d
837110208	100	34	35	16
837110308	125	45	50	22
837110408	160	54	55	26



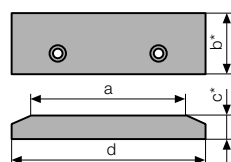
Vee jaw

Part no.	a	b	b1	c	d
530300002	100	34	19	17	8 – 35
530300003	125	45	27	19	10 – 50
530300004	160	54	32	21	12 – 60



Clamping jaw, soft

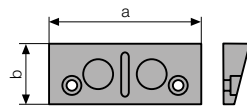
Part no.	a	b	c
520550097	100	36	20
520550098	125	47	25
520550099	160	56	30



Clamping jaw extra large

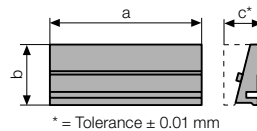
Part no.	a	b	c	d
520581025	100	34	13	125
520581026	125	45	15	160
520581027	160	54	20	200

all dimensions in mm



QIS base jaw with permanent magnets

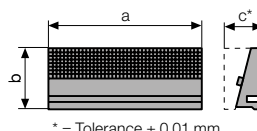
Part no.	a	b	
937710201	100	34	
937710301	125	45	
937710401	160	54	



* = Tolerance ± 0.01 mm

QIS interchangeable jaw, smooth

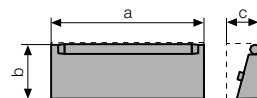
Part no.	a	b	c
837711201	100	34	21
837711301	125	45	26
837711401	160	54	31



* = Tolerance ± 0.01 mm

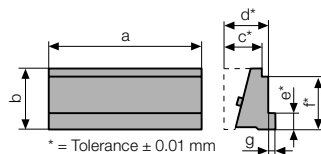
QIS interchangeable jaw, serrated

Part no.	a	b	c
837712201	100	34	21
837712301	125	45	26
837712401	160	54	31



QIS interchangeable jaw, crowned

Part no.	a	b	c
837713211	100	32,5	23,0
837713311	125	43,0	27,3
837713411	160	51,0	31,9



* = Tolerance ± 0.01 mm

QIS interchangeable jaw, stepped

Part no.	a	b	c	d	e	f	g
837714201	100	34	21	25	10	29	4
837714301	125	45	26	30	13	39	5
837714401	160	54	31	35	15	45	5

all dimensions in mm

Mount magnetic base jaw

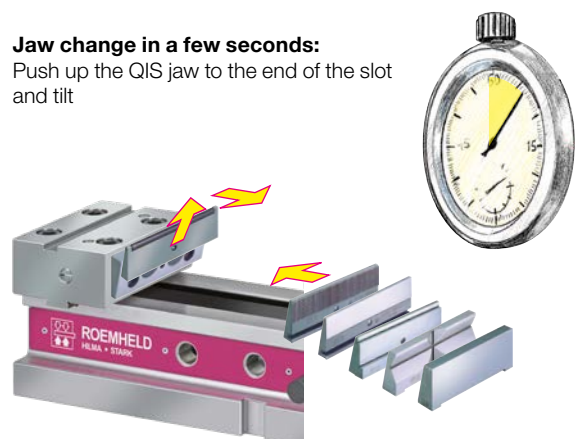


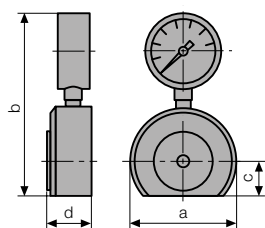
Approach the QIS jaw in parallel and insert the jaw guided by a locating pin



Jaw change in a few seconds:

Push up the QIS jaw to the end of the slot and tilt

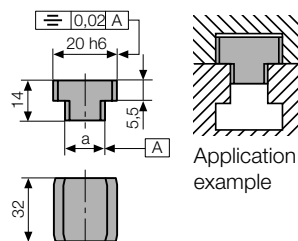
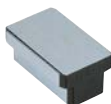




Load cell

for regular checks of the clamping force of hydraulic and mechanical clamping systems.

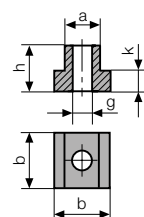
Part no.	Display range kN	a	b	c	d	For jaw width
295010001	0 – 60	88	150	29	37	100/125/160



Set of key blocks DIN 6323

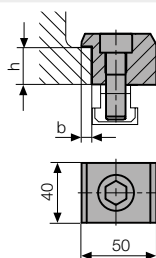
for precise alignment of the clamping device on the machine table the key blocks are inserted laterally.

Part number for 2 off = 1 set	Table slot a
939174121	14 h6
939174141	18 h6



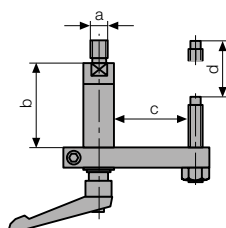
Set of T-nuts DIN 508

Part number for 4 off = 1 set	a	b	g	h	k
937773211	14	22	M 12	16	8
937773231	18	28	M 12	20	10
937773311	18	28	M 16	20	10



Set of clamping claws with screws

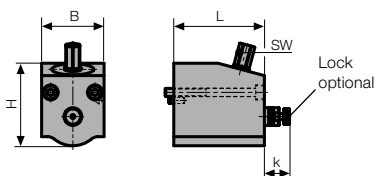
Part number for 4 off = 1 set	for type	Slot	b	h	Socket head cap screw DIN 912
937773051	KNC 100 KNC 125	14	6	16	M 12 x 30 8.8
937773061	KNC 100 KNC 125	18	6	16	M 16 x 40 8.8
937773031	KNC 160	14	7	20	M 12 x 35 8.8
937773041	KNC 160	18	7	20	M 16 x 40 8.8



Precision workpiece stop

pivoting, rapid fixation, adjustment in 2 levels

Part no.	For jaw width	a	b	c	d
932910201	100 / 125 / 160	M 12	61	95	46



Angle drive

without locking device, for subsequent fitting

Part no.	for type	L	B	H	k	SW
932940251	KNC 100	85	54	76	22,5	14
932940352	KNC 125/ KNC 160	90	62	82	24	14

Locking device for HILMA.KNC angle drive

for subsequent fitting

Part no.	for type
931520529	KNC 100
931530529	KNC 125/ KNC 160

Locking device

for subsequent fitting

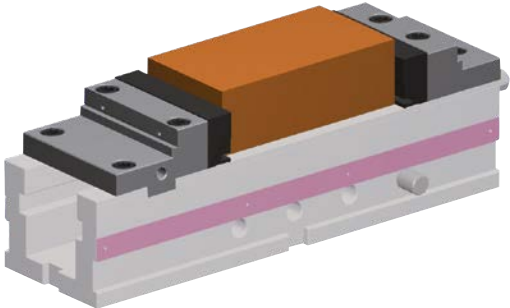
Part no.	for type
931520528	KNC 100
931530528	KNC 125/ KNC 160

Clamping force preselection

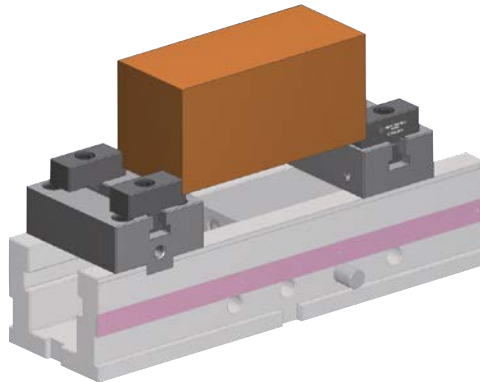
incl. locking device, for subsequent fitting

Part no.	for type
937620251	KNC 100
937620351	KNC 125/ KNC 160

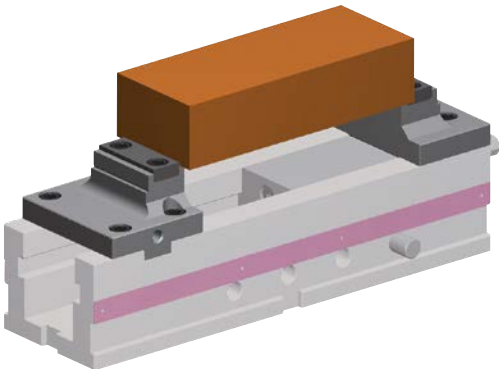
all dimensions in mm



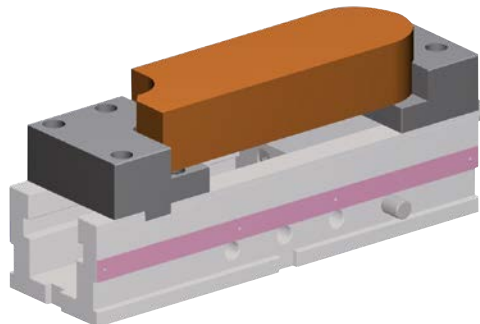
Insert with QIS clamping jaws



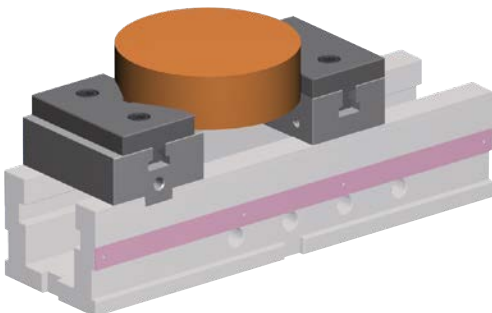
SlimFlex jaw with movable inserts



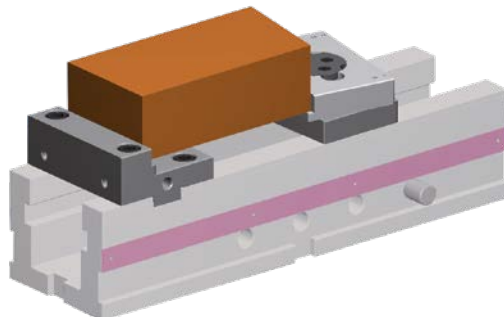
Clamping jaws with reduced width for narrow workpieces



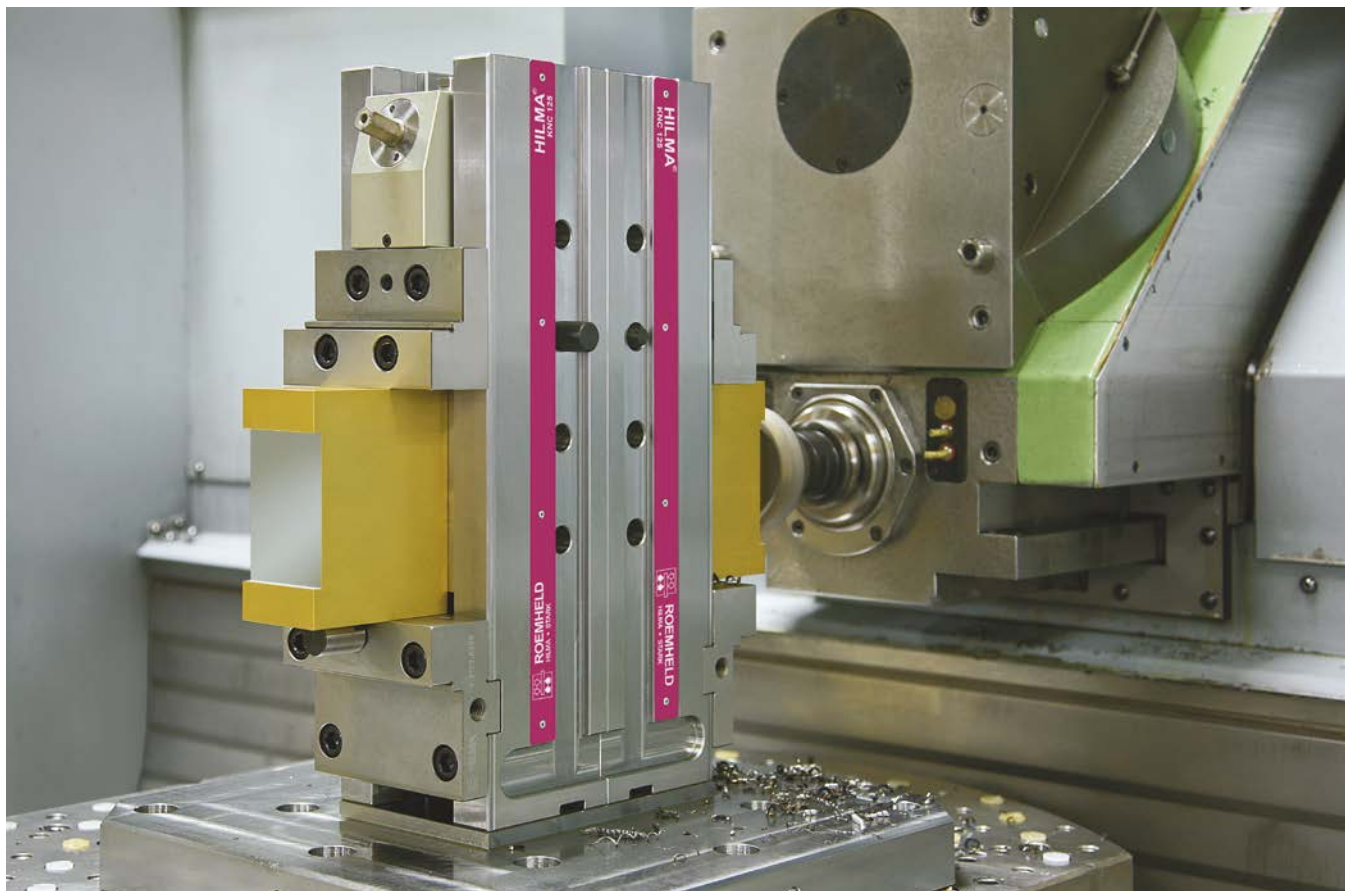
Soft clamping jaws with workpiece contours



SlimFlex jaw for round workpieces



Pendulum jaw to compensate angular errors



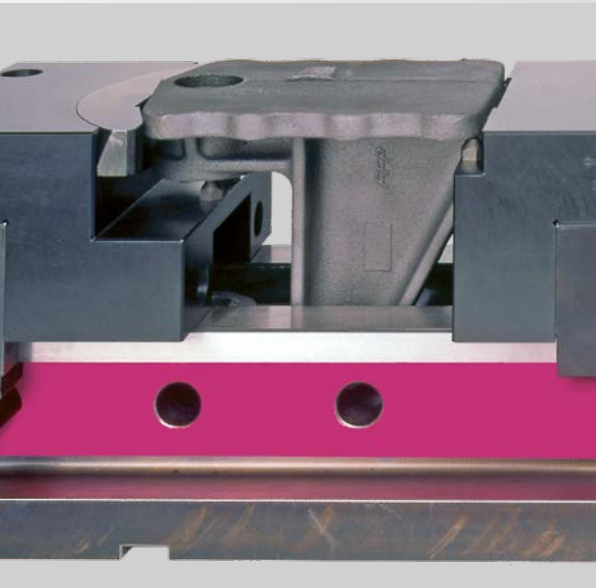


ROEMHELD
HILMA ■ STARK

HILMA.NC with clamping force display



HILMA.DS hydraulic with floating jaws



HILMA.NC with special clamping jaws



HILMA.MC for 5-sided machining

STARK Spannsysteme GmbH

Römergrund 14
6830 Rankweil, Austria
+43 5522 37 400 - 0
info@stark-roemheld.com
www.stark-roemheld.com